

# VIRGINIA

## *Economic Indicators*

Final U.S. 2008 Estimates and Updated 2009-2010 U.S. Projections, Fourth Quarter Virginia Data, Virginia Benchmark Revisions and Forecasts, and Historical Graphs



### FEATURE ARTICLE:

*Virginia 2008 Nonagricultural Employment Performance and 2009-2010 Updated Forecasts*

by William F. Mezger, Chief Economist

# 4

Volume 40,  
Number 4



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Final U.S. 2008 Estimates and Updated 2009-2010 U.S. Projections, Fourth Quarter Virginia  
Data, Virginia Benchmark Revisions and Forecasts, and Historical Graphs

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# FOREWORD

For those who are interested in studying the business cycle, the *Virginia Economic Indicators* publication is designed to depict the movement of the key economic indicator series readily available in Virginia. Most of these series are published elsewhere; but here, they are brought together in both graphic and tabular form, under one cover, and grouped so that they may be analyzed and interpreted easily.

Ten of the fourteen series currently used—the two employment series, the four unemployment series, and the four hours and earnings series—are produced in-house by the Economic Information Services Division of the Virginia Employment Commission and are comparable to similar national series produced by the U.S. Department of Labor. The four business indicators are provided by sources outside of the agency (see the Historical Summary at the back of this publication for data sources) and should prove useful to the student of business cycle development in Virginia.

All series currently published in the *Indicators* have been seasonally adjusted to minimize regular seasonal fluctuations in the data in order to show only activity related to the business cycle. The *Virginia Economic Indicators* is currently the only seasonally adjusted publication of some of the Virginia series.

From time to time, new series will be added to this report as the data becomes available and is collected and tested. Also, series presently provided, if necessary, may be discontinued. Historical graphs are published in the back of the fourth quarter issue for each year.

This publication provides a narrative analysis update of the U.S. economy, a narrative analysis of recent changes in Virginia, and highlights of both economies. Also, feature articles dealing with some currently important aspects of the Virginia economy are presented. Feature articles are written in-house or by guest authors knowledgeable on particular economics-related subjects.

This publication is normally produced quarterly in April, July, October, and February, but data in the series is provided on a monthly basis. There is a time lag of one quarter before all the data series are available for publication and analysis.

With the 2002 benchmarks in 2003, all states were required to switch to the North American Industry Classification System (NAICS) codes which replace the Standard Industrial Classification (SIC) codes formerly used. The NAICS codes were updated in 2007. The NAICS conversion affects the factory employment series and the four hours-and-earnings series in that, where 2001 - 2008 data has

been revised to NAICS, data prior to this time is still on the old SIC basis with more manufacturing industries. This means a slight break in these series when comparisons are made with former periods prior to 2001.

The main change to manufacturing is that, under NAICS, newspapers and publishing houses are no longer included in manufacturing, and so their employment and earnings are missing from revised 2001 - 2008 data.

NOTE: In First Quarter 2009, the employment, total unemployment rate, and hours and earnings series all went through the annual benchmarking process. It was especially important to use the revised data in this issue because the fourth quarter Virginia Economic Indicators contains the historical series. All historical series are now updated to the very latest figures. Also, all data has been updated to 2007 NAICS revisions.

The U.S. forecast analysis is based on the Global Insight projections which the state purchases. Virginia projections use the state model with enhancements from VEC data for the areas.

Significant advances in printing technologies and the competitive bidding process allowed the production of the current format with its enhancements on an annual contract basis at a substantial cost savings over the previous process and format.

Production and distribution of the *Virginia Economic Indicators*, like most Virginia Employment Commission projects, are financed through specifically-earmarked U.S. Department of Labor grants and do not use Virginia state funding sources.

We welcome any comments, suggestions, or questions concerning *Virginia Economic Indicators*.

Please address your comments to:

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> LMI Home > Publications.





*The recession really took hold in the final months of 2008 in both the nation and Virginia.*

Final 2008 estimates showed fourth quarter Gross Domestic Product (GDP) growth in the U.S. was negative by 6.3 percent as the economy appeared to be in a state of free fall due to the recession. The final rate of GDP growth for all of 2008 was still positive, averaging 1.1 percent, in spite of an economy in free fall the final months of the year, because of positive growth of 0.9 percent in the first quarter and 2.8 percent in the second quarter (tax rebate checks). The 1.1 percent 2008 GDP growth rate was, however, slower than the 2.0 percent growth rate in 2007.

The U.S. economy does not turn on a dime. Although the major stimulus packages, such as the Troubled Assets Relief Program (TARP), the Homeowner Affordability and Stability Plan, and the American Recovery and Reinvestment Act have been passed and the monies are starting to flow to the intended recipients, it takes months for these monies to work into the economy and have an impact. GDP growth will likely be as negative in First Quarter 2009 as it was in Fourth Quarter 2008. Second and third quarters will likely also be negative, but less so. GDP growth may return to positive territory in 2009's final quarter. GDP growth is expected to average severely negative at 3.5 percent for all of 2009. By 2010, there should be modest positive GDP growth of 1.4 percent. GDP is expected to return to 3.0 percent trend line growth by 2011.

The recession that has been gripping the nation since December 2007 caught up with Virginia in the final four months of 2008. Seasonally adjusted figures showed nonagricultural employment peaked in Virginia at 3,775,900 in February 2008, then there were minor job losses and gains in spring and summer, before a secondary peaking of 3,769,500 occurred in August. Nonfarm employment receded for the remainder of the year, reaching 3,704,100 by December; 71,800 below February 2008; and 65,400 below the August secondary peak.

The fourteen series used to measure the Virginia economy showed a significant downturn by Fourth Quarter 2008.

- ◎ October had five series up, one unchanged, and eight down.

- ◎ November had all fourteen series down, one of the few times this had happened since the *Virginia Indicators* have been published.

- ◎ December was a little better with four series up, one unchanged, and nine down.

There were no positive records set this quarter, but there were several new lows.

Annual average Virginia 2008 nonfarm employment of 3,757,500 was only 3,900, or 0.1 percent, below the 2007 Virginia nonfarm employment average of 3,761,400. The good news is that the six industrial sectors that are the mainstays of Virginia's employment base continued to add jobs in 2008. They were: private education and health care, up 17,700, or 4.2 percent; total government, up 11,600, or 1.7 percent; professional and business services, up 8,800, or 1.4 percent; miscellaneous services, up 3,200, or 0.2 percent; leisure and hospitality, up 3,200, or 0.1 percent; and mining, up 200, or 1.8 percent.

Virginia's unemployment rate after the annual benchmarking averaged 4.0 percent for 2008, up 1.0 percent from the 3.0 percent unemployment rate averages in both 2006 and 2007. The unemployment rate moved noticeably higher in the last months of the year, reaching 5.0 percent (seasonally adjusted) for December 2008.

Just released annual average comparisons of all the states by the U.S. Bureau of Labor Statistics show Virginia, at 4.0 percent, had the ninth-lowest unemployment rate average in 2008. South Dakota, with a 3.0 percent average, was the lowest.

The Consumer Price Index for the United States for All Urban Consumers (CPI-U) registered an annual rise of 3.8 percent in 2008 to average 215.3 (1982-84=100). This was higher than the 2.9 percent rise recorded in 2007. The spike in fuel prices in spring and summer 2008 caused the steep rise.

According to the Bureau of Labor Statistics of the U.S. Department of Labor, productivity in the nonfarm business sector decreased at an annual rate of 0.4 percent in Fourth Quarter 2008, as output decreased 8.7 percent and hours

of all persons—employees, proprietors, and unpaid family workers—decreased 8.3 percent. The decline in nonfarm business output was the largest since First Quarter 1982 (-8.7 percent) and the decline in hours was the largest since First Quarter 1975 (-12.0 percent). Productivity increased 2.2 percent during the last four quarters. Hourly compensation grew 5.3 percent in Fourth Quarter 2008. Real hourly compensation rose steeply, 15.9 percent, when the 9.2 percent decrease in consumer prices was taken into account. This was the largest increase ever in the real hourly compensation series, which began in Second Quarter 1947. Real hourly compensation rose 2.5 percent during the past four quarters. Unit labor costs increased 5.7 percent in the fourth quarter and 1.8 percent over the last four quarters. The implicit price deflator for nonfarm business increased 0.5 percent in the fourth quarter after increasing 4.7 percent in the previous quarter.

When annual averages for 2008 were compared with annual averages for 2007, labor productivity increased 2.8 percent in the nonfarm business sector. The productivity gains, the largest since 2004, were due more to declining hours than the small gains in output and were

larger than the 2.5 percent average annual increase during the 2000-2007 period. In 2008, hourly compensation increased 3.7 percent in the nonfarm business sector. Because consumer prices increased more (3.8 percent), real hourly compensation fell slightly. The annual decline in this measure of purchasing power was the first since small declines occurred in three consecutive years—1993, 1994, and 1995. Unit labor costs rose just 0.9 percent in the nonfarm business sector during 2008, as hourly compensation growth was largely offset by productivity growth. Unit labor costs had increased 1.4 percent from 2000 to 2007.

According to the Energy Information Administration of the U.S. Department of Energy, coal production in Virginia in 2008 was 24,820,000 short tons mined, which was 2.5 percent less than the 25,462,000 short tons mined in 2007. Lost production from problems at a major producer early in the year were never completely made up.

*William F. Mezger*

William F. Mezger, Chief Economist  
Virginia Employment Commission





# U.S. ECONOMIC OUTLOOK

## FORECAST UPDATE—FINAL U.S. 2008 FIGURES, PLUS THE LATEST REVISIONS TO THE U.S. 2009-2010 FORECASTS

William F. Mezger, Chief Economist

The Fourth Quarter 2008 saw the economy in a state of free fall.

- Real gross domestic product (GDP)—the output of goods and services produced by labor and property located in the United States—fell at an annual rate of 6.3 percent in the Fourth Quarter 2008, according to final estimates released on March 26, 2009, by the Bureau of Economic Analysis of the U.S. Department of Commerce. Real GDP had been down 0.5 percent in Third Quarter 2008.
- The decrease in real GDP in the fourth quarter primarily reflected negative contributions from exports (-23.6 percent), personal consumption expenditures (-4.3 percent), equipment and software (-28.1 percent), and residential fixed investment (-2.8 percent) that were partly offset by

a positive contribution from federal government spending (+7.0 percent). Imports, which are a subtraction in the calculation of GDP, decreased (-17.5 percent). Most of the major components contributed to the much larger decrease in real GDP in the fourth quarter than in the third quarter. The largest contributors were a downturn in exports and a much larger decrease in equipment and software. The most notable offset was a much larger decrease in imports.

The annual average economic projections for the U.S. in 2008, published three months ago in *Economic Assumptions* and third quarter *Virginia Economic Indicators*, saw many items turn out worse than projected because of the economy being in a state of free fall in the fourth quarter. Only existing home sales, 4.89 million, were minutely better than the

*GDP growth for 2008 averaged 1.1 percent in spite of an economy in a state of free fall in the fourth quarter.*



| U.S. 2008 growth estimate averages           | Percent (except as noted) |                 |
|--|---------------------------|-----------------|
|  | Previous                  | Final Estimates |
| Real GDP                                     | 1.2                       | 1.1             |
| Personal Income                              | 3.8                       | 3.8             |
| Consumer Spending (Real)                     | 0.3                       | 0.2             |
| Business Investment (Real)                   | 1.9                       | 1.6             |
| Federal Government Spending (Real)           | 5.7                       | 6.0             |
| State and Local Government Spending (Real)   | 1.2                       | 1.1             |
| Housing Starts (Million Units)               | 0.91                      | 0.90            |
| Existing Home Sales (Million Units)          | 4.86                      | 4.89            |
| Light Vehicle Sales (Million Units)          | 13.1                      | 13.1            |
| Nonagricultural Employment                   | -0.2                      | -0.4            |
| Unemployment Rate (Levels)                   | 5.8                       | 5.8             |
| Consumer Price Inflation                     | 3.8                       | 3.8             |
| Oil Prices (\$ per Barrel)                   | 100                       | 100             |
| Industrial Production                        | -1.6                      | -2.2            |
| Federal Government Surplus (Billion Dollars) | -455                      | -455            |
| Current Account Balance (Billion Dollars)    | -666                      | -673            |

The 1.1 percent growth rate average in 2008 was slower than the 2.0 percent growth rate average in 2007.



4.86 million projected. Personal income, light vehicle sales, the unemployment rate, consumer price inflation, oil prices, and the federal deficit turned out as projected. The final rate of GDP growth for 2008 was 1.1 percent gain versus the 1.2 percent gain that was projected. GDP growth remained positive overall in 2008 in spite of an economy in free fall the final months of the year because of positive growth of 0.9 percent in the first quarter and 2.8 percent in the second quarter (tax rebate checks passed through the system).

A year ago it looked like the U.S. economy would have a “speed bump” downturn in 2008 and would have resumed growth by 2009. Instead, economic conditions worsened all year as the recession, which has now been officially designated by the National Bureau of Economic Research (NBER), the Princeton, New Jersey, group that officially designates recessions in the U.S., as starting December 1, 2007. As of April 1, 2009, the current recession entered its seventeenth month, making it the longest recession of the post-World War II period. The two other longest post-World War II recessions, 1973-75 and 1981-82, lasted 16 months each. In the

last months of 2008, the current recession quickly spread to the rest of the world and many foreign countries will see a worse recession than the United States.

Things bringing about the 2007-? recession:

- ⊙ A weaker recovery from the 2001 recession (GDP growth only averaged above the 3.0 percent 20-year trend line rate one year—2004.)
- ⊙ The costs of fighting twin wars in Iraq and Afghanistan were drains on the recovery.
- ⊙ Excesses in the housing market brought about the financial crisis.
  - ◆ Low interest rates in 2001-2004 caused an upsurge in home building and buying.
  - ◆ Much speculation in real estate, especially in California, Nevada, Arizona, and Florida
  - ◆ A relaxation in banking and mortgage regulations
    - ◇ Since there was no one now working in the financial markets, who was working there in the

1930's, many safeguards put in place after the Great Depression were abandoned in the interest of promoting profits and "free markets."

- ◇ The distinctions between banks, savings and loans, and investment banks all sort of blurred.
  - ◇ Because land values had only gone up since 1945, it was assumed loans secured by land values could only go up in value, no matter how risky the borrowers. These mortgages were rated as "Triple A" by the investment rating services, packaged by investment bankers, and traded around the world until no one knew the value of what they had.
  - ◆ Higher interest rates by 2006-2007 caused the housing bubble to burst with investors retreating from mortgage-backed securities.
  - ◆ The Federal Reserve tried to solve the problem by:
    - ◇ Lowering interest rates eight times from September 2007 to December 2008.
    - ◇ Forcing the sale of Bear Stearns, Merrill Lynch, Washington Mutual, and Wachovia (fifth-largest bank), plus allowing Lehman Brothers to fail.
    - ◇ Lending to investment banks and extending financing directly to the securitized consumer and business credit markets.
  - ◆ In the meantime, the U.S. Treasury had teamed up with the Federal Reserve to bail out Fannie Mae and Freddie Mac and AIG Insurance.
  - ◆ The Federal Reserve and Treasury went to Congress to ask for help in October 2008, and the result was the \$700 billion Troubled Assets Relief Program (TARP).
    - ◇ TARP was originally to purchase troubled mortgage assets, but it has become a bailout of financial houses, plus "bridge" loans to General Motors and Chrysler.
- ◎ As a result of the financial crisis:
    1. Banks became afraid to lend even to good customers and to other banks.
    2. Consumers, shocked by the loss of home equity and the mess in the financial markets, stopped buying—also they could not get loans for "big ticket" purchases.
  - ◎ In the meantime, Barack Obama, the junior Democratic Senator from Illinois, was elected the 44<sup>th</sup> U.S. President in November 2008, and the new Obama administration has moved quickly to try to get a handle on the financial situation:
    - ◆ After a couple of false starts, it is now, under TARP, going to assess the banking problems bank by bank, provide the monies to cover the bank deficiencies in exchange for bank common stock, and sell these investments to get credit flowing. There will now be strong, new checks and regulations on the financial institutions.
    - ◆ Pushed through Congress in February 2009, the \$75 billion Homeowner Affordability and Stability Plan that will help to save the best of bad mortgages through Fannie Mae and Freddie Mac
    - ◆ The \$787 billion (over two years) American Recovery and Reinvestment Act, was passed by Congress in February 2009 to stimulate the economy. The American Recovery and Reinvestment Act:
      - ◇ Raised the amount to be paid to states for Medicaid and pays for health clinics, community health centers, and meals for low-income seniors
      - ◇ Provides a fiscal stabilization fund to states
        - » The major part goes to education—grades K-12, special education, and needy students
        - » General fund benefits are provided, such as tax cuts to families and small businesses, education tax credits, infrastructure improvements ("shovel-ready"), investments



*The worst period of the recession should be 2009, but it may be 2013 before national unemployment drops below 8 percent.*

in health care and alternative energy, support to local governments in the downturn, and extended jobless benefits

- ◆ Appointed federal offices to administer the resolution of General Motors' and Chrysler's problems
- ◆ Further stimulus plans are expected to be in the Fiscal Year 2010 federal budget.

The purposes of all the rescue and stimulus plans are to:

1. Put a floor under home prices
2. Restore liquidity to the banking system so that lending will be restarted and the nation can recover from the recession.

It will take *time* for the stimulus and recovery plans to work. The following is our latest revised forecasts for 2009 and 2010.

## The Immediate Outlook

The U.S. economy does not turn on a dime. Although the major stimulus packages have been passed and the monies are starting to flow to the intended recipients, it takes months for the monies to work into the economy and have an impact.

- ⊙ GDP growth will likely be as negative in First Quarter 2009 as it was in Fourth Quarter 2008. Second and third quarters will likely also be negative, but less so. GDP growth may return to positive territory in 2009's final quarter. GDP growth is expected to average severely negative at 3.5 percent for all of 2009. By 2010, there should be modest positive GDP growth of 1.4 percent. GDP is expected to return to 3.0 percent trend line growth by 2011.
- ⊙ Consumers, who are responsible for over 60 percent of GDP normally, will largely stay out of the market for 2009, with consumer spending still negative (-0.9 percent). This will change to 1.8 percent positive in 2010, as credit liquidity has started to flow again.

| Updated 2009 and 2010 Forecasts              | Percent (except as noted) Averages |        |
|--|------------------------------------|--------|
|  | 2009                               | 2010   |
| Real GDP                                     | -3.5                               | 1.4    |
| Personal Income                              | 0.1                                | 1.8    |
| Consumer Spending (Real)                     | -0.9                               | 1.7    |
| Business Investment (Real)                   | -18.8                              | -0.1   |
| Federal Government Spending (Real)           | 5.2                                | 1.2    |
| State and Local Government Spending (Real)   | -1.9                               | -0.5   |
| Housing Starts (Million Units)               | 0.55                               | 0.85   |
| Existing Home Sales (Million Units)          | 4.31                               | 4.35   |
| Light Vehicle Sales (Million Units)          | 9.5                                | 11.3   |
| Nonagricultural Employment                   | -3.6                               | -0.8   |
| Unemployment Rate (Levels)                   | 9.1                                | 10.2   |
| Consumer Price Inflation                     | -1.4                               | 1.6    |
| Oil Prices (\$ per Barrel)                   | 45                                 | 54     |
| Industrial Production                        | -10.2                              | -0.3   |
| Federal Government Surplus (Billion Dollars) | -1,907                             | -1,690 |
| Current Account Balance (Billion Dollars)    | -406                               | -544   |

The baseline forecast probability is 60 percent.

- ⊙ Business spending will be very negative (-18.8 percent) in 2009 and barely negative (-0.1 percent) in 2010.
- ⊙ Housing starts should bottom out at just over 500,000 in 2009 and then be on the upswing. Thirty-year mortgage rates are now below 5.0 percent, helped by the Federal Reserve's purchase of mortgage-backed securities. Existing housing sales will be moving up from 4.3 million in 2009.
- ⊙ The light vehicle market is expected to remain dismal at less than 10 million unit sales in 2009 and only 11.3 million unit sales in 2010. The problem is the domestic manufacturers need a market of 14-15 million unit sales to survive. General Motors may survive through some kind of pre-planned bankruptcy, but Chrysler will likely be broken up with some of the better remnants (Jeep and the minivans) sold to someone else.
- ⊙ Federal government spending will be up 5.2 percent in 2009 as the stimulus monies are disbursed, but increase only 1.2 percent in 2010, as much of the stimulus monies will have been spent. The federal deficit will reach \$1.9 trillion in 2009 and be \$1.7 trillion in 2010. The Obama administration hopes all the stimulus monies will revive the economy, bringing in more tax revenues, and reduce the federal deficit to only \$470 billion by 2012. While we are expected to see deflation at 1.4 percent in 2009, if the stimulus

does not produce the desired recovery and additional tax revenues, inflation could be rising sharply by 2012, forcing the Federal Reserve to cause interest rates to rise much higher than the almost zero percent current level.

- ⊙ Employment and unemployment are always the “caboose of the economic train”—the last to turn around in both good times and bad. The economy is expected to continue to shed jobs into 2010, and then all the unemployed need to be rehired. The U.S. unemployment rate is not expected to fall below 8.0 percent before 2013.
- ⊙ For once, high or rising oil prices are not much of a factor in the forecast.

**The baseline forecast has a 60 percent probability.**

### Forecast Alternatives

In the **optimistic scenario**, the rescue and stimulus packages work better and faster than expected. The turn-around is *now*, and GDP growth is back to nearly 3.0 percent in 2010. (Probability is 20 percent.)

In the **pessimistic scenario**, there is a “second” Great Depression, and there is nearly a decade of sub-par growth. (Probability is 20 percent.)

April 17, 2009



# VIRGINIA INDICATORS

## FOURTH QUARTER 2008 DATA

William F. Mezger, Chief Economist

The recession that has been gripping the nation since December 2007 (according to the National Bureau of Economic Research (NBER), the Princeton, New Jersey, group that designates recessions in the United States), caught up with Virginia in the final four months of 2008. Revised seasonally adjusted figures showed nonagricultural employment peaked in Virginia at 3,775,900 in February 2008, then there were minor job losses and gains in spring and summer, before a secondary peaking of 3,769,500 occurred in August. Nonfarm employment receded for the remainder of the year, reaching 3,704,100 by December; 71,800 below February 2008; and 65,400 below the August secondary peak.

Annual average Virginia 2008 nonfarm employment of 3,757,500 was only 3,900, or 0.1 percent, below the 2007 Virginia nonfarm employment average of 3,761,400. The good news is that the six industrial sectors, that are the mainstays of Virginia's employment base continued

to add jobs in 2008. They were: private education and health care, up 17,700, or 4.2 percent; total government, up 11,600, or 1.7 percent; professional and business services, up 8,800, or 1.4 percent; miscellaneous services, up 3,200, or 0.2 percent; leisure and hospitality, up 3,200, or 0.1 percent; and mining, up 200, or 1.8 percent.

Virginia's unemployment rate after the annual benchmarking averaged 4.0 percent for 2008, up 1.0 percent from the 3.0 percent unemployment rate averages in both 2006 and 2007. The unemployment rate moved noticeably higher in the last months of the year, reaching 5.0 percent (seasonally adjusted) for December 2008. The number of unemployed workers in Virginia averaged 164,800 in 2008—up 42,800 from the 2007 revised average of 122,000. The state's civilian labor force averaged 4,124,800—57,300 more than the revised 2007 civilian labor force average of 4,067,500.

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*The recession that plagued the nation in 2008 caught up with Virginia late in the year.*







Just released annual average comparisons of all the states by the U.S. Bureau of Labor Statistics show Virginia, at 4.0 percent, had the ninth-lowest unemployment rate average in 2008. South Dakota, with a 3.0 percent average, was the lowest. The other states with lower unemployment averages than Virginia were: Wyoming, 3.1 percent; North Dakota, 3.2 percent; Nebraska, 3.3 percent; Utah, 3.4 percent; Oklahoma, 3.8 percent; New Hampshire, 3.8 percent; and Hawaii, 3.9 percent. Virginia with a 4.0 percent average rate remained the lowest-large state. The next lowest-large state was Texas with a 4.9 percent average unemployment rate. The U.S. unemployment rate average increased from 4.6 percent in 2007 to 5.8 percent for 2008.

Even with the downturn in the economy, Virginia was faring better than many other states. For more detail on the 2008 benchmark revisions, data on the metropolitan areas and updated state and area projections for 2009 and 2010, please be sure to see this issue's feature article, "*Virginia 2008 Nonagricultural Employment Performance and 2009 - 2010 Updated Forecasts*," starting on page 20.

The fourteen series used to measure the Virginia economy that are the only series on Virginia for which data is available showed a significant downturn by Fourth Quarter 2008.

- ⊙ October had five series up, one unchanged, and eight down.

- ⊙ November had all fourteen series down for one of the few times this had happened since the *Virginia Indicators* have been published.
- ⊙ December was a little better with four series up, one unchanged, and nine down.

There were no positive records set this quarter, but there were several new lows:

- ⊙ Manufacturing employment reached new lows for the series each month of the fourth quarter, being down to 261,600 in October, 258,300 in November, and 256,600 in December.
- ⊙ Many lengthened year-end factory furloughs in 2008 dropped production hours worked to new lows of 8,250,000 in November and 7,931,000 in December.
- ⊙ Single family housing permits sunk to a new low for the series of 1,033 in November.

As we go to press, the recession also worsened in the state of Virginia. The seasonally adjusted Virginia unemployment rate rose from 5.0 percent in December 2008 to 6.0 percent in January 2009 and 6.6 percent in February 2009. The March seasonally adjusted jobless rate will likely be 6.8 percent. Employment, led by construction and manufacturing, as in Fourth Quarter 2008, continued to shed jobs. Only health care, higher education, amusements, and some services were doing limited hiring. Virginia seemed to be holding its unemployment

Please be sure to see this issue's feature article: "*Virginia 2008 Nonagricultural Employment Performance and 2009-2010 Updated Forecasts*," starting on page 20.

rankings position among the various states. At the beginning of Second Quarter 2009, it is probably still too early to tell when the recession will end in Virginia.

The six-month moving average of rising indicators on page 19, serves to illustrate the quarter's performance. The moving average enhances analysis because it smoothes out much of the irregularity present in many of the individual series.

### **The annual benchmark revisions showed the recession took hold in Virginia by Fourth Quarter 2008.**

Under the new benchmark revisions, seasonally adjusted nonagricultural payroll employment reached an all-time high of 3,775,900 in February 2008, then there were minor job losses and gains in spring and summer, before a secondary peaking of 3,769,500 occurred in August. Nonfarm employment then fell for the remainder of the year, being down 6,700 in September (no change on tables), 14,100 in October (no change on tables), 23,600 in November, and 21,000 in December. (It now takes over 18,000 to cause + or -0.5 percent change on the tables.) Nonfarm employment ended the year at 3,704,100, 71,800, or 1.9 percent, below the all-time February 2008 peak and 65,400, or 1.7 percent, below the secondary peak August 2008 level of 3,769,500. Manufacturing

employment set new lows for the series each month of the quarter, being down 1,400 in October, 3,300 in November, and 1,700 in December. Factory employment ended 2008 at an all-time low of 256,600. Factory employment lost 6,400 jobs in Fourth Quarter 2008.

The four unemployment-related series were all negative all three months of the fourth quarter, except for unemployment final payments, which were positive in October. The total unemployment rate rose from the 4.1 percent it had held for August and September to 4.3 percent in October, 4.6 percent in November, and 5.0 percent in December. New claims for unemployment benefits moved up each month of the quarter, going from 7,280 in September to 9,888 in December, a 17-year high. Also upward bound was the insured unemployment rate (the ratio of claimants to the number eligible to draw benefits), rising from 1.12 percent in September to 1.24 percent in October; 1.58 percent in November; and 1.86 percent in December. Unemployment insurance final payments (which often reflect layoffs six-months previous) fell from 4,815 in September to 4,199 in October, then rose to 4,255 in November, and 6,097 in December. The December level was a five-year high.

The four production workers hours and earnings series were mostly positive







in October, but then turned largely negative after that. The length of the production workweek rose from 42.2 hours in September to 42.8 hours in October, but then slumped to 40.8 hours in November and 39.6 hours in December. The workweek fell below 40.0 hours this December for the first time since October 2002. In the last year, manufacturers had been working several hours of overtime per week to fill the demand for export goods. This export demand dried up in Fourth Quarter 2008 as the rest of the world quickly sunk into a deep recession. Following the workweek, production hours worked rose slightly from 8,676,000 in September to 8,762,000 in October, then slumped to new lows for the series of 8,250,000 in November, and 7,931,000 in December. Many year-end factory furloughs lasted for five to six weeks this year. The average hourly factory wage fell from \$18.58 in September to \$18.43 in October and \$18.03 in November, but rose slightly to \$18.08 for December (no change on the tables). The average weekly factory earnings rose from \$783.31 in September to \$789.35 in October, but then the shortened workweek reduced it to \$734.80 in November and \$714.17 in December.

The four business-related series were pretty much negative all quarter until December, when they all swung back to positive (maybe they know something we do not yet know). New single family housing permits bumped up from 1,579 in September to 1,880 in October, were down to a record-low 1,033 in November, but bounced back to 1,369 for December. New business incorporations decreased from 1,287 in September to 1,252 in October and 1,025 in November (a 25-year low), but rose to 1,263 in December. New light vehicle registrations were down from 33,191 in September to 28,964 in October and 22,935 in November (a 25-year low), then turned up to 30,316 for December. Taxable retail sales went downhill from \$8,666 million in September to \$8,487 million in October and \$8,172 million in November. They then turned up to \$8,417 million in December. A possible explanation here is that the late Thanksgiving in 2008 (November 27) pushed the recording of sales for the big after-Thanksgiving sales weekend into December. Generally, merchants reported the 2008 holiday sales period was the worst since 1969.

## EMPLOYMENT INDICATORS

| Nonagricultural Wage and Salary Employment* |             |          | Manufacturing Employment* |          | Total Unemployment Rate* |          |
|---|-------------|----------|---------------------------|----------|--------------------------|----------|
|   | (Thousands) |          | (Thousands)               |          | (Percent)                |          |
| 2007  | Unadjusted  | Adjusted | Unadjusted                | Adjusted | Unadjusted               | Adjusted |
| January                                     | 3,699.8     | 3,754.5  | 279.4                     | 281.1    | 3.2                      | 2.8      |
| February                                    | 3,705.7     | 3,754.0  | 280.6                     | 282.1    | 3.1                      | 2.8      |
| March                                       | 3,737.1     | 3,757.0  | 280.8                     | 282.3    | 2.9                      | 2.8      |
| April                                       | 3,753.1     | 3,756.2  | 279.6                     | 280.0    | 2.6                      | 2.9      |
| May   | 3,777.8     | 3,759.1  | 278.8                     | 278.9    | 2.8                      | 2.9      |
| June  | 3,808.8     | 3,762.1  | 280.2                     | 278.7    | 3.1                      | 3.0      |
| July  | 3,760.0     | 3,762.7  | 278.1                     | 278.0    | 3.1                      | 2.9      |
| August                                      | 3,752.5     | 3,762.1  | 277.0                     | 275.9    | 3.1                      | 3.1      |
| September                                   | 3,770.2     | 3,765.4  | 276.1                     | 275.3    | 3.0                      | 3.1      |
| October                                     | 3,776.9     | 3,766.1  | 274.7                     | 274.4    | 2.9                      | 3.2      |
| November                                    | 3,795.3     | 3,770.0  | 274.3                     | 274.1    | 3.0                      | 3.3      |
| December                                    | 3,799.5     | 3,769.4  | 273.9                     | 273.0    | 3.2                      | 3.3      |
| 2008  |             |          |                           |          |                          |          |
| January                                     | 3,719.8     | 3,774.0  | 270.2                     | 271.9    | 3.6                      | 3.4      |
| February                                    | 3,728.1     | 3,775.9  | 267.2                     | 268.6    | 3.6                      | 3.5      |
| March                                       | 3,749.0     | 3,768.5  | 265.7                     | 267.1    | 3.6                      | 3.6      |
| April                                       | 3,770.5     | 3,773.5  | 267.7                     | 268.0    | 3.2                      | 3.7      |
| May   | 3,787.7     | 3,768.6  | 266.6                     | 266.7    | 3.6                      | 3.8      |
| June  | 3,806.8     | 3,759.5  | 266.8                     | 265.4    | 4.0                      | 3.9      |
| July  | 3,765.3     | 3,768.6  | 265.3                     | 265.0    | 4.1                      | 4.0      |
| August                                      | 3,759.1     | 3,769.5  | 265.0                     | 264.0    | 4.3                      | 4.1      |
| September                                   | 3,766.6     | 3,762.8  | 263.7                     | 263.0    | 4.1                      | 4.1      |
| October                                     | 3,757.9     | 3,748.7  | 261.8                     | 261.6    | 4.2                      | 4.3      |
| November                                    | 3,748.1     | 3,725.1  | 258.4                     | 258.3    | 4.6                      | 4.6      |
| December                                    | 3,731.4     | 3,704.1  | 257.2                     | 256.6    | 5.1                      | 5.0      |

\* These series have been adjusted to First Quarter 2008 benchmarks.

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## UNEMPLOYMENT INSURANCE INDICATORS

| Average Weekly Initial Claims |            |          | Insured Unemployment Rate<br>(Percent) |          | Unemployment Insurance<br>Final Payments |          |
|-------------------------------|------------|----------|--|----------|--|----------|
|                               | Unadjusted | Adjusted | Unadjusted                             | Adjusted | Unadjusted                               | Adjusted |
| 2007                          |            |          |  |          |  |          |
| January                       | 7,301      | 4,878    | 1.09                                   | 0.87     | 3,506                                    | 3,168    |
| February                      | 5,813      | 5,931    | 1.08                                   | 0.94     | 2,911                                    | 3,050    |
| March                         | 4,580      | 5,017    | 0.95                                   | 0.91     | 3,153                                    | 2,957    |
| April                         | 4,265      | 5,141    | 0.92                                   | 0.94     | 3,054                                    | 2,890    |
| May                           | 3,961      | 4,773    | 0.91                                   | 0.94     | 3,573                                    | 3,325    |
| June                          | 4,093      | 4,672    | 0.83                                   | 0.90     | 2,933                                    | 2,871    |
| July                          | 4,995      | 4,556    | 0.79                                   | 0.81     | 3,470                                    | 3,287    |
| August                        | 3,829      | 4,749    | 0.63                                   | 0.71     | 3,149                                    | 2,889    |
| September                     | 3,617      | 4,439    | 0.82                                   | 0.98     | 2,630                                    | 2,966    |
| October                       | 4,519      | 4,980    | 0.84                                   | 0.91     | 2,956                                    | 3,251    |
| November                      | 5,603      | 5,263    | 0.90                                   | 0.91     | 2,496                                    | 2,865    |
| December                      | 5,991      | 4,347    | 1.07                                   | 1.00     | 2,741                                    | 3,056    |
| 2008                          |            |          |  |          |  |          |
| January                       | 8,194      | 5,432    | 1.16                                   | 0.93     | 3,747                                    | 3,327    |
| February                      | 5,407      | 5,513    | 1.11                                   | 0.96     | 3,040                                    | 3,179    |
| March                         | 5,001      | 5,456    | 1.23                                   | 1.18     | 3,295                                    | 3,137    |
| April                         | 4,777      | 5,768    | 1.06                                   | 1.08     | 4,311                                    | 4,072    |
| May                           | 4,772      | 5,734    | 1.02                                   | 1.05     | 3,562                                    | 3,274    |
| June                          | 4,994      | 5,764    | 1.16                                   | 1.26     | 3,641                                    | 3,639    |
| July                          | 5,698      | 5,214    | 1.13                                   | 1.16     | 4,603                                    | 4,326    |
| August                        | 4,741      | 5,902    | 1.09                                   | 1.23     | 3,768                                    | 3,468    |
| September                     | 5,900      | 7,280    | 0.93                                   | 1.12     | 4,300                                    | 4,815    |
| October                       | 7,122      | 7,844    | 1.15                                   | 1.24     | 3,856                                    | 4,199    |
| November                      | 8,940      | 8,305    | 1.57                                   | 1.58     | 3,649                                    | 4,255    |
| December                      | 13,603     | 9,888    | 2.01                                   | 1.86     | 5,460                                    | 6,097    |

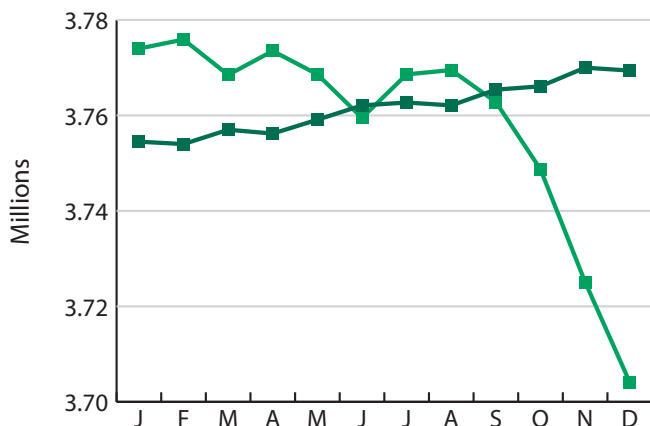
## EMPLOYMENT INDICATORS

January 2007 - December 2008

2007

2008

### Nonagricultural Wage and Salary Employment



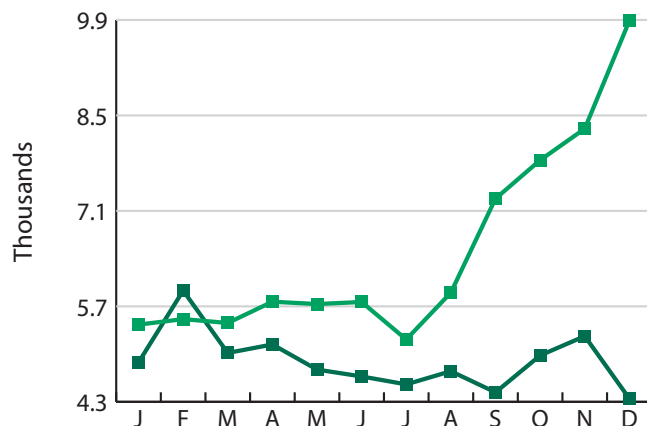
## UNEMPLOYMENT INSURANCE INDICATORS

January 2007 - December 2008

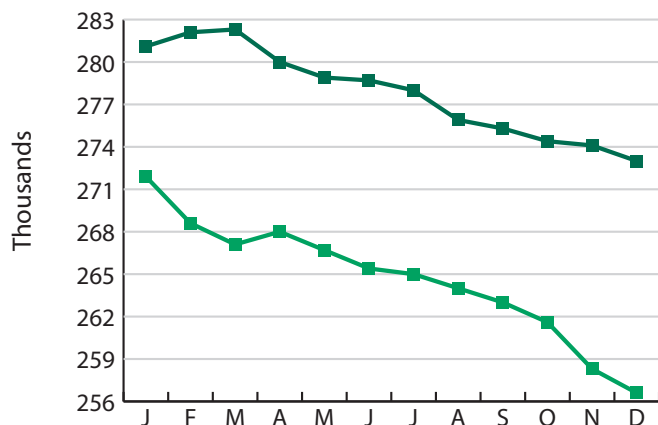
2007

2008

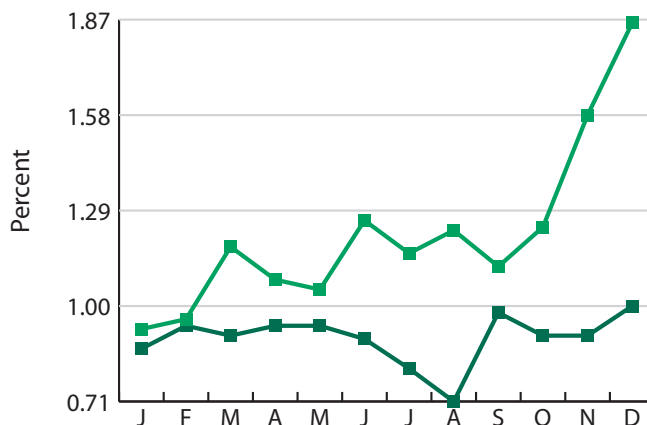
### Average Weekly Initial Claims



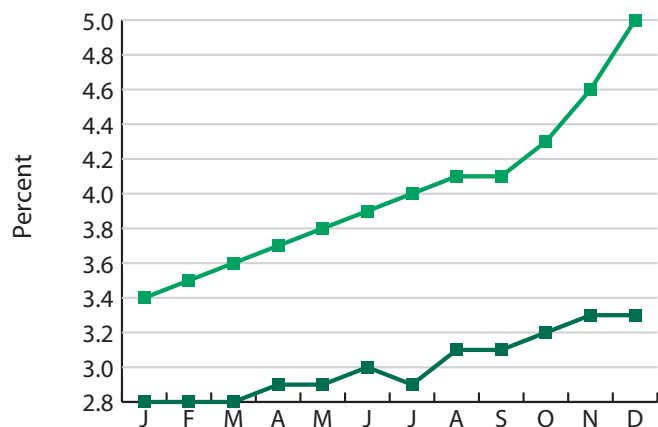
### Manufacturing Employment



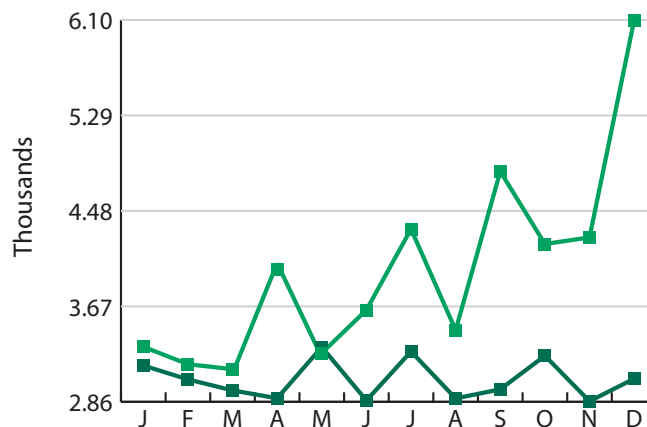
### Insured Unemployment Rate



### Total Unemployment Rate



### Unemployment Insurance Final Payments



## MANUFACTURING PRODUCTION WORKER INDICATORS

|             | Average Weekly Hours* |          | Average Hourly Earnings*<br>(Dollars) |          | Deflated Average Hourly Earnings*<br>(1982-84 Dollars) |          |
|-------------|-----------------------|----------|---------------------------------------|----------|--|----------|
| 2007        | Unadjusted            | Adjusted | Unadjusted                            | Adjusted | Unadjusted   | Adjusted |
| January     | 41.3                  | 41.1     | 17.09                                 | 17.04    | 8.65   | 8.58     |
| February    | 41.1                  | 41.1     | 17.06                                 | 17.05    | 8.59   | 8.53     |
| March       | 41.5                  | 41.7     | 17.08                                 | 17.15    | 8.51   | 8.55     |
| April       | 41.1                  | 41.6     | 17.35                                 | 17.31    | 8.58   | 8.59     |
| May         | 41.5                  | 41.2     | 17.25                                 | 17.36    | 8.47   | 8.58     |
| June        | 42.6                  | 42.1     | 17.69                                 | 17.63    | 8.68   | 8.70     |
| July        | 41.7                  | 42.0     | 17.70                                 | 17.71    | 8.69   | 8.75     |
| August      | 42.2                  | 42.4     | 17.66                                 | 17.72    | 8.69   | 8.74     |
| September   | 41.8                  | 42.1     | 17.77                                 | 17.80    | 8.72   | 8.76     |
| October     | 41.8                  | 41.5     | 17.66                                 | 17.64    | 8.64   | 8.67     |
| November    | 43.5                  | 43.9     | 18.31                                 | 18.32    | 8.89   | 8.84     |
| December    | 43.6                  | 42.9     | 18.47                                 | 18.37    | 8.98   | 8.79     |
| <b>2008</b> |                       |          |                                       |          |  |          |
| January     | 43.4                  | 43.2     | 18.29                                 | 18.24    | 8.85   | 8.77     |
| February    | 43.8                  | 43.8     | 18.22                                 | 18.21    | 8.79   | 8.72     |
| March       | 43.5                  | 43.7     | 18.19                                 | 18.26    | 8.70   | 8.73     |
| April       | 42.9                  | 43.5     | 18.29                                 | 18.25    | 8.68   | 8.70     |
| May         | 44.4                  | 44.1     | 18.16                                 | 18.29    | 8.53   | 8.65     |
| June        | 43.9                  | 43.4     | 18.43                                 | 18.36    | 8.56   | 8.59     |
| July        | 43.1                  | 43.4     | 18.56                                 | 18.56    | 8.58   | 8.65     |
| August      | 43.4                  | 43.5     | 18.64                                 | 18.69    | 8.66   | 8.71     |
| September   | 41.9                  | 42.2     | 18.53                                 | 18.58    | 8.62   | 8.67     |
| October     | 43.0                  | 42.8     | 18.45                                 | 18.43    | 8.70   | 8.72     |
| November    | 40.4                  | 40.8     | 18.02                                 | 18.03    | 8.69   | 8.64     |
| December    | 40.2                  | 39.6     | 18.16                                 | 18.08    | 8.87   | 8.69     |

\* These series have been adjusted to First Quarter 2008 benchmarks.

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## MANUFACTURING PRODUCTION WORKER INDICATORS (CONTINUED)

|             | Total Production Hours*<br>(Thousands) |          | Average Weekly Earnings*<br>(Dollars) |          | Deflated Average Weekly Earnings*<br>(1982-84 Dollars) |          |
|-------------|--|----------|---------------------------------------|----------|--|----------|
| 2007        | Unadjusted                             | Adjusted | Unadjusted                            | Adjusted | Unadjusted   | Adjusted |
| January     | 9,032                                  | 9,047    | 705.82                                | 701.44   | 357.27   | 353.02   |
| February    | 9,026                                  | 9,094    | 701.17                                | 701.52   | 353.16   | 351.39   |
| March       | 9,113                                  | 9,214    | 708.82                                | 713.84   | 353.33   | 355.31   |
| April       | 9,005                                  | 9,119    | 713.09                                | 721.18   | 352.79   | 357.02   |
| May         | 9,064                                  | 9,017    | 715.88                                | 715.85   | 351.51   | 351.83   |
| June        | 9,355                                  | 9,208    | 753.59                                | 741.55   | 369.58   | 366.57   |
| July        | 9,078                                  | 9,153    | 738.09                                | 742.35   | 362.34   | 367.22   |
| August      | 9,170                                  | 9,154    | 745.25                                | 754.47   | 366.76   | 372.82   |
| September   | 9,058                                  | 9,080    | 742.79                                | 749.58   | 364.31   | 368.72   |
| October     | 8,991                                  | 8,924    | 738.19                                | 733.68   | 361.26   | 358.67   |
| November    | 9,357                                  | 9,435    | 796.49                                | 802.81   | 386.85   | 388.38   |
| December    | 9,348                                  | 9,165    | 805.29                                | 786.81   | 391.34   | 379.84   |
| <b>2008</b> |  |          |                                       |          |  |          |
| January     | 9,144                                  | 9,160    | 793.79                                | 788.86   | 383.95   | 379.37   |
| February    | 9,102                                  | 9,173    | 798.04                                | 797.87   | 385.05   | 382.74   |
| March       | 8,996                                  | 9,092    | 791.27                                | 795.95   | 378.33   | 380.00   |
| April       | 8,949                                  | 9,068    | 784.64                                | 794.29   | 372.40   | 377.47   |
| May         | 9,231                                  | 9,187    | 806.30                                | 807.14   | 378.92   | 379.58   |
| June        | 9,158                                  | 9,010    | 809.08                                | 795.93   | 375.93   | 372.92   |
| July        | 8,952                                  | 9,007    | 799.94                                | 803.31   | 369.82   | 374.48   |
| August      | 9,019                                  | 8,988    | 808.98                                | 818.37   | 375.84   | 381.88   |
| September   | 8,652                                  | 8,676    | 776.41                                | 783.31   | 361.23   | 365.53   |
| October     | 8,815                                  | 8,762    | 793.35                                | 789.35   | 373.90   | 371.27   |
| November    | 8,165                                  | 8,250    | 728.01                                | 734.80   | 351.19   | 352.90   |
| December    | 8,080                                  | 7,931    | 730.03                                | 714.17   | 356.44   | 346.42   |

\* These series have been adjusted to First Quarter 2008 benchmarks.

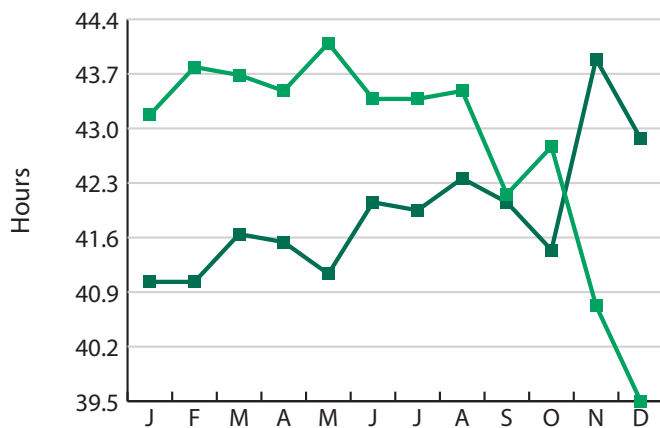


# MANUFACTURING PRODUCTION WORKER INDICATORS

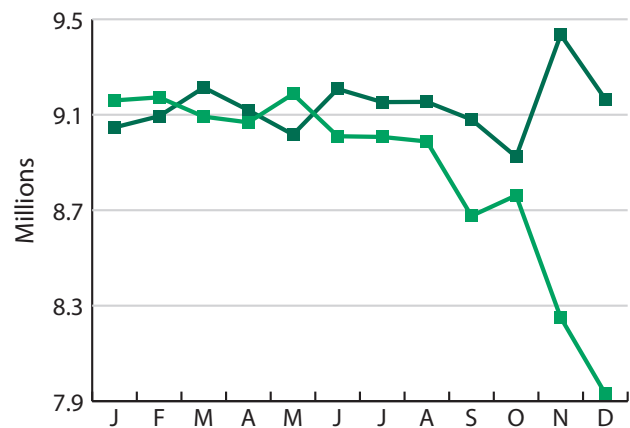
January 2007 - December 2008

2007 2008

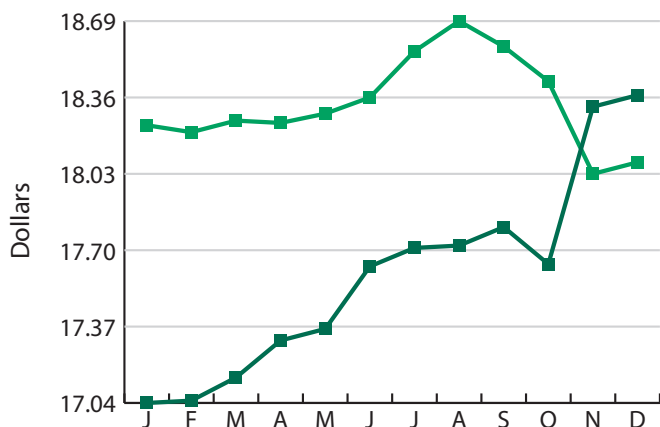
## Average Weekly Hours



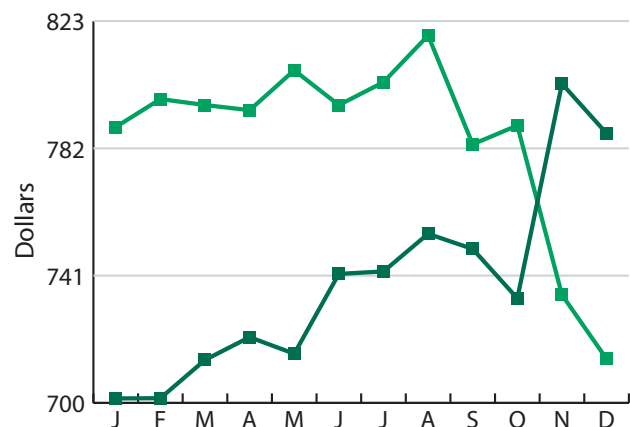
## Total Production Hours



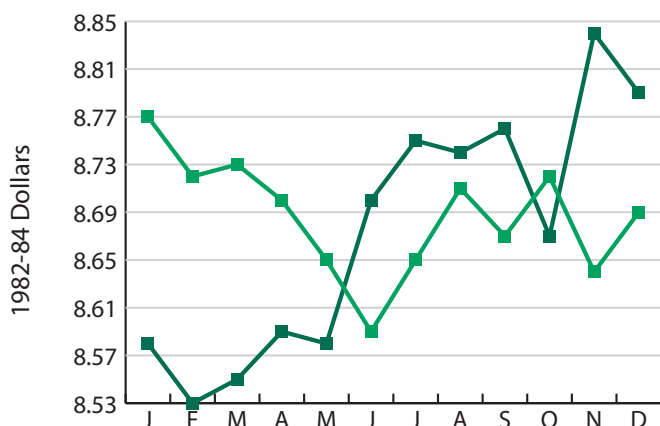
## Average Hourly Earnings



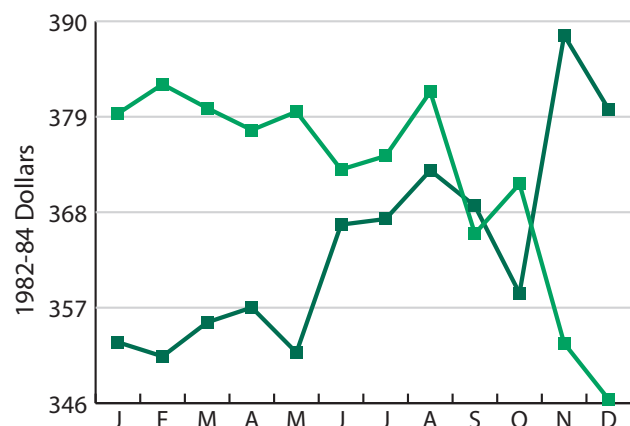
## Average Weekly Earnings



## Deflated Average Hourly Earnings



## Deflated Average Weekly Earnings



## BUSINESS INDICATORS

|             | Single Family Housing Permits |          | New Business Incorporations |          | New Vehicle Registrations |          |
|-------------|-------------------------------|----------|-----------------------------|----------|---------------------------|----------|
| 2007        | Unadjusted                    | Adjusted | Unadjusted                  | Adjusted | Unadjusted                | Adjusted |
| January     | 2,350                         | 2,764    | 1,560                       | 1,535    | 41,967                    | 44,801   |
| February    | 2,588                         | 2,745    | 1,553                       | 1,501    | 33,096                    | 41,955   |
| March       | 3,082                         | 2,666    | 1,885                       | 1,516    | 45,232                    | 43,280   |
| April       | 2,936                         | 2,596    | 1,549                       | 1,445    | 46,993                    | 44,210   |
| May         | 3,156                         | 2,702    | 1,596                       | 1,481    | 55,429                    | 48,806   |
| June        | 3,057                         | 2,582    | 1,575                       | 1,518    | 49,747                    | 43,115   |
| July        | 2,751                         | 2,590    | 1,315                       | 1,363    | 44,414                    | 41,414   |
| August      | 2,491                         | 2,386    | 1,534                       | 1,601    | 47,082                    | 41,401   |
| September   | 1,849                         | 2,042    | 1,114                       | 1,153    | 40,381                    | 38,532   |
| October     | 2,084                         | 2,190    | 1,558                       | 1,739    | 43,040                    | 42,877   |
| November    | 1,702                         | 2,018    | 1,185                       | 1,476    | 35,045                    | 42,266   |
| December    | 1,443                         | 1,935    | 1,271                       | 1,380    | 28,170                    | 36,092   |
| <b>2008</b> |                               |          |                             |          |                           |          |
| January     | 1,891                         | 2,214    | 1,578                       | 1,528    | 38,869                    | 41,100   |
| February    | 1,865                         | 1,956    | 1,329                       | 1,298    | 31,615                    | 39,991   |
| March       | 2,045                         | 1,763    | 1,604                       | 1,290    | 37,113                    | 35,723   |
| April       | 1,947                         | 1,722    | 1,761                       | 1,651    | 39,156                    | 36,859   |
| May         | 1,818                         | 1,550    | 1,453                       | 1,340    | 40,756                    | 35,757   |
| June        | 1,905                         | 1,612    | 1,344                       | 1,289    | 41,337                    | 35,840   |
| July        | 1,821                         | 1,711    | 1,400                       | 1,452    | 38,733                    | 36,084   |
| August      | 1,635                         | 1,573    | 1,087                       | 1,130    | 34,003                    | 29,884   |
| September   | 1,422                         | 1,579    | 1,236                       | 1,287    | 34,522                    | 33,191   |
| October     | 1,789                         | 1,880    | 1,125                       | 1,252    | 29,138                    | 28,964   |
| November    | 873                           | 1,033    | 822                         | 1,025    | 19,032                    | 22,935   |
| December    | 1,010                         | 1,369    | 1,153                       | 1,263    | 23,637                    | 30,316   |

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## BUSINESS INDICATORS (CONTINUED)

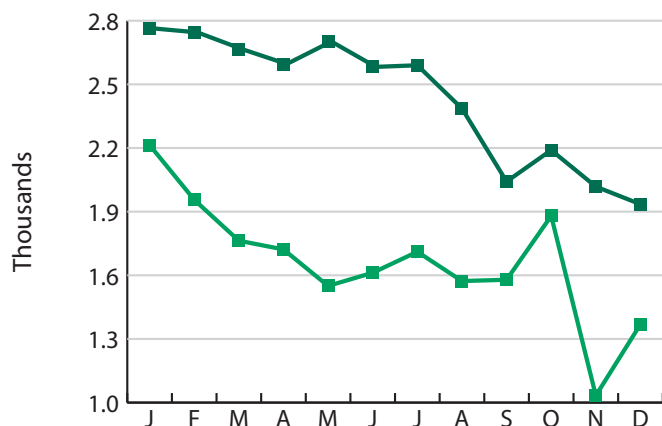
|             | Taxable Retail Sales<br>(Millions of Dollars) |          | Deflated Taxable Retail Sales<br>(Millions of 1982-84 Dollars) |          |
|-------------|---|----------|--|----------|
| 2007        | Unadjusted                                    | Adjusted | Unadjusted   | Adjusted |
| January     | 7,714   | 8,924    | 3,905  | 4,489    |
| February    | 7,807   | 8,892    | 3,932  | 4,452    |
| March       | 8,895   | 8,812    | 4,434  | 4,387    |
| April       | 8,586   | 8,702    | 4,248  | 4,320    |
| May         | 9,045   | 8,958    | 4,441  | 4,427    |
| June        | 9,299   | 8,707    | 4,560  | 4,304    |
| July        | 8,633   | 8,720    | 4,238  | 4,293    |
| August      | 8,849   | 8,925    | 4,355  | 4,420    |
| September   | 8,557   | 8,585    | 4,197  | 4,242    |
| October     | 9,028   | 8,996    | 4,418  | 4,393    |
| November    | 8,687   | 8,902    | 4,219  | 4,303    |
| December    | 10,572  | 8,669    | 5,138  | 4,154    |
| <b>2008</b> |   |          |  |          |
| January     | 7,599   | 8,768    | 3,676  | 4,215    |
| February    | 7,692   | 8,744    | 3,711  | 4,192    |
| March       | 8,728   | 8,653    | 4,173  | 4,131    |
| April       | 8,538   | 8,637    | 4,052  | 4,115    |
| May         | 8,786   | 8,682    | 4,129  | 4,109    |
| June        | 9,382   | 8,785    | 4,359  | 4,118    |
| July        | 8,712   | 8,815    | 4,028  | 4,088    |
| August      | 8,514   | 8,559    | 3,955  | 4,004    |
| September   | 8,622   | 8,666    | 4,011  | 4,063    |
| October     | 8,527   | 8,487    | 4,019  | 3,989    |
| November    | 7,962   | 8,172    | 3,841  | 3,921    |
| December    | 10,220  | 8,417    | 4,990  | 4,049    |

# BUSINESS INDICATORS

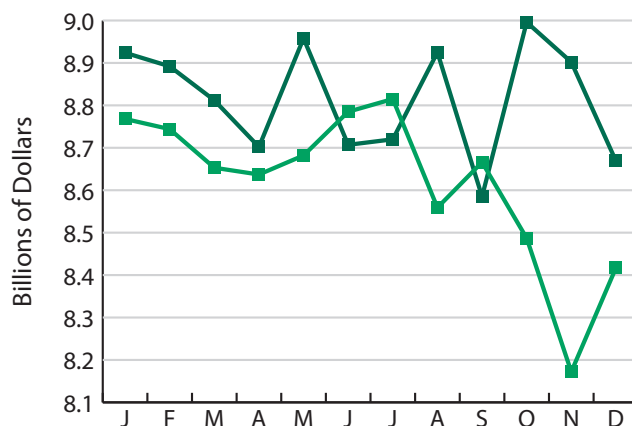
January 2007 - December 2008

2007 2008

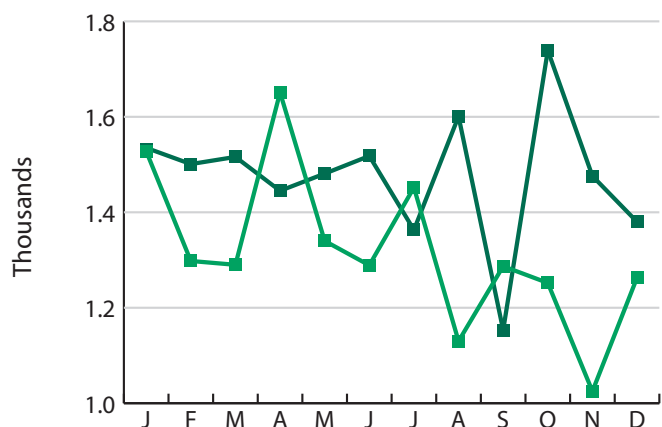
## Single Family Housing Permits



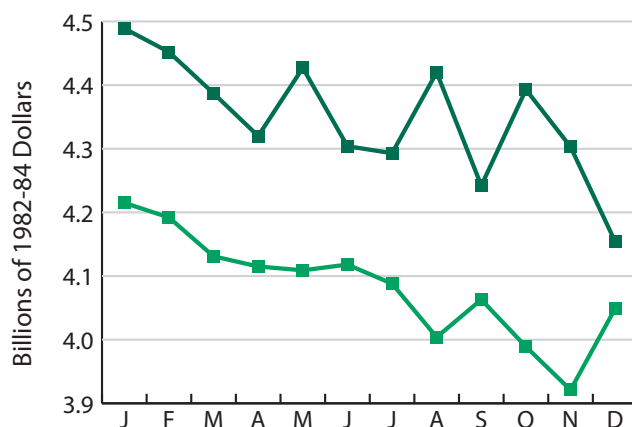
## Taxable Retail Sales



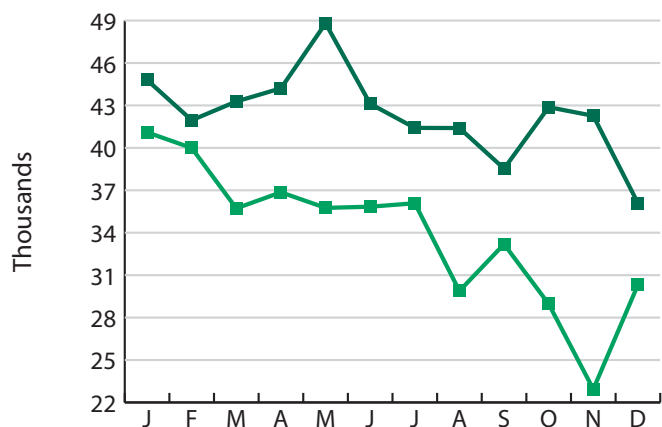
## New Business Incorporations



## Deflated Taxable Retail Sales



## New Vehicle Registrations



## DATA SUMMARY (SEASONALLY ADJUSTED DATA)

### OCTOBER 2008

|   | Oct 2008 | Sep 2008 | Oct 2007 | Percent & Direction of Change** |                   |
|---|----------|----------|----------|---------------------------------|-------------------|
|   |          |          |          | Sep 2008-Oct 2008               | Oct 2007-Oct 2008 |
| <b>EMPLOYMENT</b>                       |          |          |          |                                 |                   |
| *Nonag Wage & Salary Emp (000)          | 3,748.7  | 3,762.8  | 3,766.1  | -0.4(0)                         | -0.46(0)          |
| *Manufacturing Employment (000)         | 261.6    | 263.0    | 274.4    | -0.53(-)                        | -4.7(-)           |
| *Total Unemployment Rate (%)            | 4.3      | 4.1      | 3.2      | (-)                             | (-)               |
| <b>UNEMPLOYMENT INSURANCE</b>           |          |          |          |                                 |                   |
| Average Weekly Initial Claims           | 7,844    | 7,280    | 4,980    | 7.7(-)                          | 57.5(-)           |
| Insured Unemployment Rate (%)           | 1.24     | 1.12     | 0.91     | (-)                             | (-)               |
| Final Payments                          | 4,199    | 4,815    | 3,251    | -12.8(+)                        | 29.2(-)           |
| <b>MANUFACTURING PRODUCTION WORKERS</b> |          |          |          |                                 |                   |
| *Average Weekly Hours                   | 42.8     | 42.2     | 41.5     | 1.42(+)                         | 3.1(+)            |
| *Total Production Hours (000)           | 8,762    | 8,676    | 8,924    | 1.0(+)                          | -1.8(-)           |
| *Average Hourly Earnings (\$)           | 18.43    | 18.58    | 17.64    | -0.8(-)                         | 4.5(+)            |
| *Average Weekly Earnings (\$)           | 789.35   | 783.31   | 733.68   | 0.8(+)                          | 7.6(+)            |
| <b>BUSINESS</b>                         |          |          |          |                                 |                   |
| Single Family Housing Permits           | 1,880    | 1,579    | 2,190    | 19.1(+)                         | -14.2(-)          |
| New Business Incorporations             | 1,252    | 1,287    | 1,739    | -2.7(-)                         | -28.0(-)          |
| New Vehicle Registrations               | 28,964   | 33,191   | 42,877   | -12.7(-)                        | -32.4(-)          |
| Taxable Retail Sales (\$M)              | 8,487    | 8,666    | 8,996    | -2.1(-)                         | -5.7(-)           |

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## DATA SUMMARY (SEASONALLY ADJUSTED DATA)

### NOVEMBER 2008

|   | Nov 2008 | Oct 2008 | Nov 2007 | Percent & Direction of Change** |                   |
|---|----------|----------|----------|---------------------------------|-------------------|
|   |          |          |          | Oct 2008-Nov 2008               | Nov 2007-Nov 2008 |
| <b>EMPLOYMENT</b>                       |          |          |          |                                 |                   |
| *Nonag Wage & Salary Emp (000)          | 3,725.1  | 3,748.7  | 3,770.0  | -0.6(-)                         | -1.2(-)           |
| *Manufacturing Employment (000)         | 258.3    | 261.6    | 274.1    | -1.3(-)                         | -5.8(-)           |
| *Total Unemployment Rate (%)            | 4.6      | 4.3      | 3.3      | (-)                             | (-)               |
| <b>UNEMPLOYMENT INSURANCE</b>           |          |          |          |                                 |                   |
| Average Weekly Initial Claims           | 8,305    | 7,844    | 5,263    | 5.9(-)                          | 57.8(-)           |
| Insured Unemployment Rate (%)           | 1.58     | 1.24     | 0.91     | (-)                             | (-)               |
| Final Payments                          | 4,255    | 4,199    | 2,865    | 1.3(-)                          | 48.5(-)           |
| <b>MANUFACTURING PRODUCTION WORKERS</b> |          |          |          |                                 |                   |
| *Average Weekly Hours                   | 40.8     | 42.8     | 43.9     | -4.7(-)                         | -7.1(-)           |
| *Total Production Hours (000)           | 8,250    | 8,762    | 9,435    | -5.8(-)                         | -12.6(-)          |
| *Average Hourly Earnings (\$)           | 18.03    | 18.43    | 18.32    | -2.2(-)                         | -1.6(-)           |
| *Average Weekly Earnings (\$)           | 734.80   | 789.35   | 802.81   | -6.9(-)                         | -8.5(-)           |
| <b>BUSINESS</b>                         |          |          |          |                                 |                   |
| Single Family Housing Permits           | 1,033    | 1,880    | 2,018    | -45.1(-)                        | -48.8(-)          |
| New Business Incorporations             | 1,025    | 1,252    | 1,476    | -18.1(-)                        | -30.6(-)          |
| New Vehicle Registrations               | 22,935   | 28,964   | 42,266   | -20.8(-)                        | -45.7(-)          |
| Taxable Retail Sales (\$M)              | 8,172    | 8,487    | 8,902    | -3.7(-)                         | -8.2(-)           |

## DATA SUMMARY (SEASONALLY ADJUSTED DATA) DECEMBER 2008

|   | Dec 2008 | Nov 2008 | Dec 2007 | Percent & Direction of Change** |                   |
|---|----------|----------|----------|---------------------------------|-------------------|
|   |          |          |          | Nov 2008-Dec 2008               | Dec 2007-Dec 2008 |
| <b>EMPLOYMENT</b>                       |          |          |          |                                 |                   |
| *Nonag Wage & Salary Emp (000)          | 3,704.1  | 3,725.1  | 3,769.4  | -0.6(-)                         | -1.7(-)           |
| *Manufacturing Employment (000)         | 256.6    | 258.3    | 273.0    | -0.7(-)                         | -6.0(-)           |
| *Total Unemployment Rate (%)            | 5.0      | 4.6      | 3.3      | (-)                             | (-)               |
| <b>UNEMPLOYMENT INSURANCE</b>           |          |          |          |                                 |                   |
| Average Weekly Initial Claims           | 9,888    | 8,305    | 4,347    | 19.1(-)                         | 127.5(-)          |
| Insured Unemployment Rate (%)           | 1.86     | 1.58     | 1.00     | (-)                             | (-)               |
| Final Payments                          | 6,097    | 4,255    | 3,056    | 43.3(-)                         | 99.5(-)           |
| <b>MANUFACTURING PRODUCTION WORKERS</b> |          |          |          |                                 |                   |
| *Average Weekly Hours                   | 39.6     | 40.8     | 42.9     | -2.9(-)                         | -7.7(-)           |
| *Total Production Hours (000)           | 7,931    | 8,250    | 9,165    | -3.9(-)                         | -13.5(-)          |
| *Average Hourly Earnings (\$)           | 18.08    | 18.03    | 18.37    | 0.3(0)                          | -1.6(-)           |
| *Average Weekly Earnings (\$)           | 714.17   | 734.80   | 786.81   | -2.8(-)                         | -9.2(-)           |
| <b>BUSINESS</b>                         |          |          |          |                                 |                   |
| Single Family Housing Permits           | 1,369    | 1,033    | 1,935    | 32.5(+)                         | -29.3(-)          |
| New Business Incorporations             | 1,263    | 1,025    | 1,380    | 23.2(+)                         | -8.5(-)           |
| New Vehicle Registrations               | 30,316   | 22,935   | 36,092   | 32.2(+)                         | -16.0(-)          |
| Taxable Retail Sales (\$M)              | 8,417    | 8,172    | 8,669    | 3.0(+)                          | -2.9(-)           |

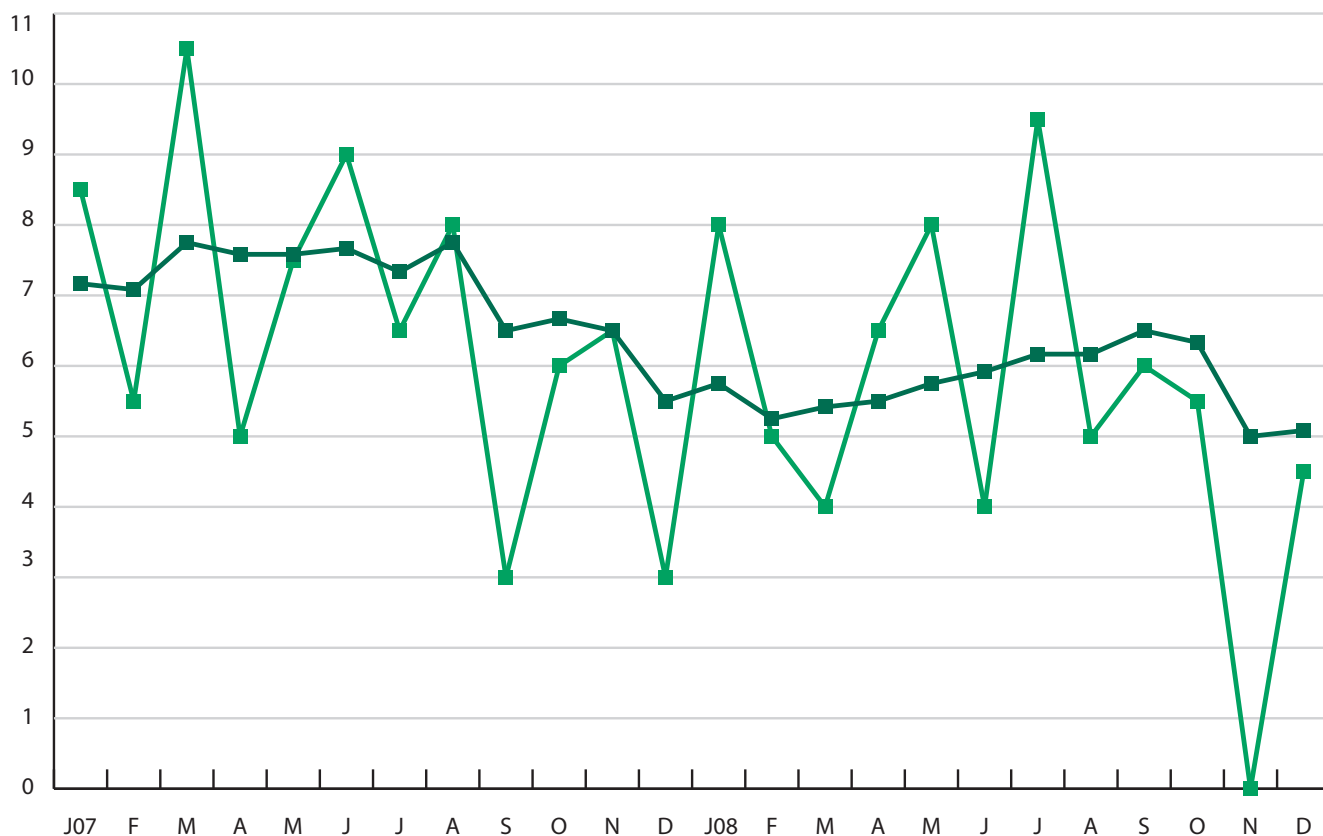
\* Revised to 1st Quarter 2008 benchmarks.

\*\* (+) Favorable, (-) Not Favorable, (0) Change between +/- 0.5%.

## NUMBER OF SERIES MOVING FAVORABLY

Plus One-Half the Number Unchanged

Monthly Total 6-Month Moving Average



# VIRGINIA 2008 NONAGRICULTURAL EMPLOYMENT PERFORMANCE AND 2009–2010 UPDATED FORECASTS

by William F. Mezger, Chief Economist

Nonagricultural wage and salary employment, one of the fourteen series used regularly in this publication to measure the Virginia economy, is annually revised to the Census of Employment and Wages (formerly called the ES-202 unemployment insurance tax records) in the first quarter of the calendar year. The table on page 21 shows a comparison of revised annual average 2008 and 2007 nonfarm employment on the new benchmark basis.

The annual benchmark revisions to the Census of Employment and Wages (formerly called the ES-202 unemployment insurance tax record) reveal 2008 Virginia job growth, after being positive for the first eight months of the year, turned negative in the final 120 days. Job reductions late in the year were enough to turn nonagricultural wage and salary employment negative by a net 3,900, or 0.1 percent. Nonagricultural wage and salary employment averaged 3,757,500 in 2008, compared to a 3,761,400 average in 2007. Key factors in the 2008 job loss were declines all year in construction and manufacturing that accelerated at year's end and far fewer than usual seasonal hires in the retail trade and service industries for the fourth quarter. The projections for 2008 that appeared in the Virginia Employment Commission's (VEC's) *Economic Assumptions* had been made by Global Insight, using the VEC's monthly preliminary nonfarm employment estimates, *before benchmarking*, as a basis. These 2008 projections, which did not have complete knowledge of the accelerated job declines late in the year at the time they were made, had forecast a modest 2008 job gain of 14,400, or 0.4 percent, for Virginia. Instead, nonfarm employment was barely negative by 3,900 jobs, or 0.1 percent. There was a difference of 17,600 jobs, or 0.5 percent, between the projected 3,775,100 and the actual 2008 nonfarm job level of 3,757,500. Virginia's job loss rate in 2008 was 0.1 percent whereas the national job loss rate was 0.4 percent.

The good news is that the six industrial sectors, that are the mainstays of Virginia's employment base continued to add jobs in 2008. They were: private

education and health care, up 17,700, or 4.2 percent; total government, up 11,600, or 1.7 percent; professional and business services, up 8,800, or 1.4 percent; miscellaneous services, up 3,200, or 0.2 percent; leisure and hospitality, up 3,200, or 0.1 percent; and mining, up 200, or 1.8 percent.

Revisions of Virginia figures for the final months of 2007 show a minimal upward adjustment of 700, or 0.0 percent, from the 3,760,701 average reported at benchmark time last year, to the 3,761,400 average now. Virginia added 34,900 jobs in 2007 for a 1.7 percent job growth rate.

## Industry Change

(using the 2007 revisions to the North American Industry Classification System [NAICS])

Virginia's best 2008 individual job gain was in **private education and health care**, which added 17,700 jobs, or 4.2 percent, significantly surpassing the projected gain of 14,900 jobs, or 3.5 percent. Private education and health care had an employment level of 438,200 in 2008, compared to a level of 420,500 in 2007. The health care portion of this industry saw even more impressive gains of 17,300, or 5.1 percent, to a 2008 level of 356,500. Health care subsector job gains of 5,600, or 4.3 percent, at physicians' and dentists' private practices; 5,400, or 5.6 percent, at hospitals; 4,200, or 8.7 percent, in private social assistance; and 2,300, or 3.4 percent, at nursing and resident homes were equally impressive. The education portion of this industry added 300 net jobs, or 0.4 percent, to a level of 81,700. The private colleges saw net growth of 900 jobs, or 3.1 percent.



The **total government** category grew by 11,600 jobs, or 1.7 percent, to an average level of 694,600. Adding the largest number of jobs was local government, up 6,600, or 0.2 percent, to 380,000. Most of this increase was in local school systems, which in many jurisdictions are the largest single employer. Federal civilian employment increased 3,600, or 2.3 percent, to a level of 160,200. Much of the gain was in defense, and Virginia, with 81,000 federal civilian defense workers, has more than any other state. State government employment, up 1,500, or 0.1 percent, to 154,500 saw virtually all this gain at state colleges and universities, which account for over 90,000 of state employment. Virginia's institutions of higher education are an export industry for the state, educating many students from outside of Virginia, and bringing in tuitions, grants, and other fees. These institutions are important engines of economic growth in several local economies, like Charlottesville, Blacksburg-Christiansburg-Radford, and Harrisonburg, as well as Richmond and Hampton Roads.

**Professional and business services** continued to be positive, especially in Northern Virginia, adding 8,800 jobs, or 1.4 percent, statewide to a level of 655,100

(Virginia's largest private employing sector). The best subsector gain of 5,800, or 4.6 percent, to 132,200 was in computer system software design. The worst subsector loss was in temporary contract worker providers, down 6,900, or 9.9 percent, to 62,900 with much of the steep loss coming during the end-of-the-year holidays.

**Miscellaneous services** grew 3,200, or 0.2 percent, to a level of 188,700 in 2008. Much of the gain was in nonprofit, charity and religious organizations, up 3,000, or 2.7 percent.

The **leisure and hospitality** industry in Virginia remained overall net positive by 3,200 jobs, or 0.1 percent, with a job level of 348,500 for 2008. The major subsectors of entertainment, accommodations, and food service all posted modest job gains, which was a major feat considering 2008 was the "year after" Jamestown, high fuel prices at peak season, and the recession worsening late in the year.

**Mining** in Virginia added a few jobs in 2008 to average employment of 11,100 with a gain of 200, or 1.8 percent. This was especially good considering a major coal producer had production problems early in the year.

## Employment in Nonagricultural Industries in Virginia

### Annual Averages\* Revised to 2008 Benchmarks in First Quarter 2009

(using 2007 revisions to NAICS categories)

| Industry                                   | 2008 Average | 2007 Average | Change  |         |
|--|--------------|--------------|---------|---------|
|  |              |              | Number  | Percent |
| Total Nonfarm Jobs                         | 3,757,500    | 3,761,400    | -3,900  | -0.1    |
| Mining                                     | 11,100       | 10,900       | +200    | +1.8    |
| Construction                               | 222,200      | 239,900      | -17,700 | -7.4    |
| Manufacturing                              | 264,600      | 277,800      | -13,200 | -4.8    |
| Trade                                      | 539,200      | 548,400      | -9,200  | -1.7    |
| Transportation, Warehousing, and Utilities | 119,000      | 119,700      | -700    | -0.6    |
| Information                                | 87,600       | 90,400       | -2,800  | -3.1    |
| Finance, Insurance, and Real Estate        | 188,800      | 193,700      | -4,900  | -2.6    |
| Professional and Business Services         | 655,100      | 646,300      | +8,800  | +1.4    |
| Private Education and Health Services      | 438,200      | 420,500      | +17,700 | +4.2    |
| Leisure and Hospitality Services           | 348,500      | 345,300      | +3,200  | +0.1    |
| Miscellaneous Services                     | 188,700      | 185,500      | +3,200  | +0.2    |
| Total Government                           | 694,600      | 683,000      | +11,600 | +1.7    |
| Federal Government                         | 160,200      | 156,600      | +3,600  | +2.3    |
| State Government                           | 154,500      | 153,000      | +1,500  | +0.1    |
| Local Government                           | 380,000      | 373,400      | +6,600  | +0.2    |

\*Totals may not add due to rounding to the nearest one hundred.



**Transportation, warehousing, and utilities** lost a net 700 jobs, or 0.6 percent, in 2008, averaging employment of 119,000. Most of the loss was in trucking and shipping, but the airlines surprisingly added a few workers.

The **Information industry** was reduced 2,800, or 3.1 percent, to a job total of 87,600 with intense telecommunications competition being the main factor in the decline.

**Finance, insurance, and real estate**, with employment of 188,800, saw job losses of 4,900, or 2.6 percent, spread across most subsectors.

The **trade** sector was down by 9,200 jobs, or 1.7 percent, to an average of 539,200. Most of the reduction was in retail trade late in the year with merchants adding less than 10,000 extra jobs for the holidays this year compared to 25,000 jobs in the 2007 holiday period.

**Factory** employment shed jobs most all year with the employment average dropping by 13,200, or 4.6 percent, to 264,600. Plant closings and many more year-end furloughs in 2008 reduced factory employment to only 257,200 by December. Average durable goods manufacturing fell 9,500, or 5.8 percent, to 153,300. Nondurable goods producers lost 3,600 jobs, or 3.1 percent, to an average of 111,400.

**Construction** employment fell all year with the 222,200 average for 2008 being 17,700, or 7.4 percent, below the 2007 average of 239,900. Last year, reductions were mostly in home building and trades contractors, but in 2008, they were spread throughout all subsectors.

### Metropolitan and Small Area Employment Changes

Virginia's nine publishable metropolitan areas had a combined net nonfarm job loss of 10,700, or 0.3 percent. All the metropolitan areas had combined nonfarm employment of 3,286,300 in 2007 and 3,275,600 in 2008. Since this was a greater loss than the net 3,900, or 0.1 percent statewide job decrease, the balance-of-state, which now includes the rural areas and the unpublished Danville metropolitan area, had a net job gain of 6,800, or 1.4 percent. Balance-of-state nonfarm employment averaged 475,100 in 2007 and 481,900 in 2008.

Three of the state's nine publishable metropolitan areas still had net job growth in 2008. They were Northern Virginia, up 4,100 jobs, or 0.3 percent; Lynchburg, up 900 jobs, or 0.8 percent; and Blacksburg-Christiansburg-Radford, up 500 jobs, or 0.7 percent. The largest metropolitan area, Northern Virginia, added the most jobs, and Lynchburg had the largest percentage gain. Of the six metropolitan areas with net job losses, Virginia Beach-Norfolk-

Newport News, Virginia/North Carolina, the state's second-largest metropolitan area, saw the biggest numerical decrease (-6,800), and Winchester, Virginia/West Virginia, the smallest metropolitan area, saw the largest percentage decrease (-3.3 percent).

- **Lynchburg**—up 0.8 percent, or 900, to 109,300. The Lynchburg area continued to benefit from still strong growth in the combined service-providing sector, up a net 3.3 percent, or 2,700. The service sector was boosted by job growth at the several private colleges in the area. Publishable total government added 200 jobs, but trade/transportation lost 200 jobs. The overall job increase came in spite of net goods-producing losses of 6.6 percent, or 1,700. Part of this was a 1,400, or 7.8 percent, decrease in manufacturing. The Lynchburg area looked fairly good before and after benchmark revisions.
- **Blacksburg-Christiansburg-Radford**—up 0.7 percent, or 500, to 71,800. Service-providing employment rose a net 2.7 percent, or 1,500, with total government being up 5.5 percent, or 1,200. Expansions at the area's two large state universities, Virginia Tech and Radford, and their support services were responsible for the services gains. The gains in services were enough to more than offset goods-producing losses of 6.3 percent, or 1,000, resulting from layoffs in vehicle production and related manufacturing. The university expansions turned this area's job performance back to positive after factory losses in 2007 and early in 2008.
- **Northern Virginia**—up 0.3 percent, or 4,100, to 1,315,100. Northern Virginia still showed strength with its 354,400 strong professional/business services, adding 2.1 percent, or 7,300 jobs. Also, adding jobs were Northern Virginia's other mainstays of growth, total government, up 2.1 percent, or 4,600; private education/health care, up 3.1 percent, or 3,800; and leisure/hospitality, up 1.9 percent, or 2,200. The biggest job loss by far was 9.0 percent, or 7,900, in construction. Also, with job reductions were finance, down 3.8 percent, or 2,600; trade/transportation, down 3.7 percent, or 1,100; information and miscellaneous services, each down 800; and manufacturing down 700. Northern Virginia was better after the benchmarking than before.
- **Charlottesville**—down 0.2 percent, or 200, to 101,700. The Charlottesville area turned barely negative primarily because of a 7.8 percent, or 900, net goods-producing loss. Also, there was a 300 publishable reduction in trade/transportation. The service-providing industries were positive by a net 0.8 percent, or 700, but this was not quite enough to keep nonfarm employment in this area positive. Publishable service-providing increases were 700 in total government (mostly University of Virginia and Medical Center), 200 in professional/business services, and 100 in leisure/hospitality. Charlottesville was less negative after benchmarking than before.
- **Roanoke**—down 0.7 percent, or 1,200, to 162,100. In the Roanoke area, the loss of 2,500 jobs outweighed job gains of 1,300. The job losses were 800 in professional/business services, 700 in manufacturing, 400 in trade/transportation, 300 in finance, 200 in information, and 100 in leisure/hospitality. The job gains were 900 in private education/health care (mostly Carilion Clinic) and 400 in total government. Construction and miscellaneous services levels were unchanged from 2007.
- **Richmond**—down 0.8 percent, or 5,200, to 628,100. Major losses were 8.4 percent, or 3,900, in construction; 4.8 percent, or 2,200, in finance; and 1.8 percent, or 2,000, in total government (state). Other losses were 3.5 percent, or 1,500, in manufacturing; 1.2 percent, or 1,400, in trade/transportation; 8.8 percent, or 1,000, in information; and 500 in leisure/hospitality. Industries that added jobs were private education/health care, up 8.4 percent, or 6,200; miscellaneous services, up 600; and professional/business services up 400.
- **Virginia Beach-Norfolk-Newport News, Virginia/North Carolina**—down 0.9 percent, or 6,800, to 768,500. Hampton Roads' biggest decreases were 2.9 percent, or 4,200, in trade/transportation; 6.2 percent, or 3,000,



in construction; and 7.5 percent, or 2,600, in miscellaneous services. Other contractions were 2.4 percent, or 1,400, in manufacturing; 2.7 percent, or 1,100, in finance; and 700 in information. The best job gains were 2.6 percent, or 2,700, in professional/business services and 1.1 percent, or 1,700, in total government. Other increases were 1.2 percent, or 1,100 in private education/health care and 700 in leisure/hospitality. Hampton Roads had a larger downward benchmark revision this time because of more construction, manufacturing, and trade/transportation losses than the samples were showing.

- **Harrisonburg**—down 1.4 percent, or 900, to 62,800. The greater loss over the year was in the goods-producing sector, down 4.3 percent, or 700, because of cutbacks at factories and in construction. The publishable manufacturing sector lost 500 jobs. The service-providing sector was

also down by 0.6 percent, or 300 jobs, because of curtailments in the publishable trade/transportation subsector of 400. There was a publishable gain of 300 in total government. The Harrisonburg area had a downward benchmark revision.

- **Winchester, Virginia/West Virginia**—down 3.3 percent, or 1,900, to 56,200. Most of the decline was in the goods-producing sector, which was down 1,500, or 11.5 percent, because of factory- and construction-related layoffs. The service-providing sector was also down, but by a smaller 0.9 percent, or 400, reduction. Much of this was due to a 300 publishable loss in trade/transportation. There was a publishable 400 gain in total government.

*Note: Because of nonpublishability due to disclosures and inadequate sample sizes and rounding to the nearest 100, area subsectors often do not add to totals.*

## METROPOLITAN AREAS

|  | 2008 Average Employment | 2007 Average Employment | Change  |         |
|--|-------------------------|-------------------------|---------|---------|
|  |                         |                         | Number  | Percent |
| Blacksburg-Christiansburg-Radford                                | 71,800                  | 71,300                  | +500    | +0.7    |
| Charlottesville  | 101,700                 | 101,900                 | -200    | -0.2    |
| Harrisonburg   | 62,800                  | 63,700                  | -900    | -1.4    |
| Lynchburg  | 109,300                 | 108,400                 | +900    | +0.8    |
| Northern Virginia  | 1,315,100               | 1,311,000               | +4,100  | +0.3    |
| Richmond   | 628,100                 | 633,300                 | -5,200  | -0.8    |
| Roanoke  | 162,100                 | 163,300                 | -1,200  | -0.7    |
| Virginia Beach-Norfolk-Newport News, Virginia/<br>North Carolina | 768,500                 | 775,300                 | -6,800  | -0.9    |
| Winchester, Virginia/West Virginia                               | 56,200                  | 58,100                  | -1,900  | -3.3    |
| Total for Nine Metropolitan Areas                                | 3,275,600               | 3,286,300               | -10,700 | -0.3    |
| Remaining Balance-of-State Total                                 | 481,900                 | 475,100                 | +6,800  | +1.4    |
| Total for State  | 3,757,500               | 3,761,400               | -3,900  | -0.1    |



## Forecast

With deterioration in the national economy, we have lowered the Virginia projections for 2009 and 2010 from what appeared in this year's *Economic Assumptions*. After job loss primarily in the final quarter of 2008 (Virginia's nonfarm employment average was only down 3,900, or 0.1 percent, for all of 2008), the negative trends that have now emerged should carry over into 2009 and some even into 2010. Nonagricultural employment is now projected to lose 54,100 jobs, or 1.5 percent, in 2009. By 2010 a weak recovery will have started with a 9,300 jobs, or 0.3 percent, net gain; but it will be beyond the forecast period, probably 2011, or 2012, before Virginia nonfarm employment gets back to the 2007 peak level of 3,761,400. Construction, manufacturing, information, finance, and leisure and hospitality are expected to continue to contract throughout the forecast period. Trade and transportation employment will see losses in 2009, but start to recover by 2010. Professional and business services should see a fairly steep loss in 2009 (20,500 jobs, or 3.1 percent), largely from its temp service, architects, engineers, and professional company managers subsectors, but bounce back fairly strongly (12,200 jobs, or 1.9 percent) by 2010. Mining and miscellaneous services will be nearly neutral, with small ups and downs. Private education and health care likely will be the only sector with job growth both years, but there is projected to be only a minimal 100 gain for 2009 as losses from private schools and colleges for a time offset the slower health care expansion. Total government will be positive in 2009, but trail off by 2010 as the recession causes lingering budget problems for many localities and the stimulus monies will be spent by then. The timing of the stimulus monies is important here, but it is assumed most of the monies will arrive and be spent in the second-half of 2009 and the first-half of 2010. Big blocks of employment in federal government and federal contracting, as usual, should bode well for Virginia. Although growth is expected to slow in Virginia's large health care and higher education sector, both sub-sectors are expected to add some workers right on through the recession. Also, Virginia does not have much employment in the nation's

## Unemployment

Virginia's unemployment rate after the annual benchmarking averaged 4.0 percent for 2008, up 1.0 percent from the 3.0 percent unemployment rate averages in both 2006 and 2007. The unemployment rate moved noticeably higher in the last months of the year, reaching 5.0 percent (seasonally adjusted) for December 2008.

The number of unemployed workers in Virginia averaged 164,800 in 2008—up 42,800 from the 2007 revised average of 122,000. The state's civilian labor force averaged 4,124,800—57,300 more than the revised 2007 civilian labor force average of 4,067,500.

Just released annual average comparisons of all the states by the Bureau of Labor Statistics of the U.S. Department of Labor show Virginia at 4.0 percent, had the ninth-lowest unemployment rate average in 2008. South Dakota, with a 3.0 percent average, was the lowest. The other states with lower unemployment averages than Virginia were: Wyoming, 3.1 percent; North Dakota, 3.2 percent; Nebraska, 3.3 percent; Utah, 3.4 percent; Oklahoma, 3.8 percent; New Hampshire, 3.8 percent; and Hawaii, 3.9 percent. Virginia with a 4.0 percent average rate remained the lowest-large state. The next lowest-large state was Texas with a 4.9 percent average unemployment rate.

The U.S. 2008 unemployment rate average increased from 4.6 percent in 2007 to 5.8 percent for 2008.

most troubled financial institutions, and manufacturing now constitutes less than seven percent of Virginia nonfarm employment. As of this writing, this recession in Virginia, although long, seems to overall be about as bad as the 1991-92 recessionary period—a lot worse than the 2001-02 recession, but not yet as bad as the 1981-82 recession. Unemployment in Virginia is now expected to average 6.2 percent in 2009 and 6.4 percent in 2010, although some months may reach around 7.0 percent joblessness.

**Nonagricultural employment\*** in Virginia is expected to shed 54,100 jobs, or 1.5 percent, in 2009, falling to average 3,703,400 for the year. By 2010, nonfarm employment should bottom out and add back 9,300 jobs, or 0.3 percent, bringing the average nonfarm job level back to 3,712,700. Job growth in the service-based economy likely will be slow to recover with the 2007 peak average job level of 3,761,400 not being regained until beyond the forecast period—in 2011 or 2012.

\*Note: Detail may not add to total, due to rounding.

**Private education and health care services** will likely be the only sector to

grow throughout the forecast period, but gains in 2009 will be minute (only 100, or +0.0 percent) as reduced enrollment at private schools and some private colleges almost cancel out slower health care gains. All portions of this industry should see better gains for 2010, adding 14,000 jobs, or 3.2 percent. Health care, social services, and nursing facilities will expand to meet the needs of an affluent, aging population. Advances in technology today cause the public to expect and demand so much more in the way of health services. These demands will expand even more as health insurance coverage grows. The major health care and education facilities located in centers throughout the state use the latest equipment and technologies to serve not only the Old Dominion, but a big portion of the upper South. Paramount to these projections is Carilion Clinic's on-going plan to make the Roanoke area into a world-class health care center similar to the Mayo Clinic. Health care is the most recession-poof industry, but job growth in the next two years will be slower than in the recent past.

**Total government** employment, Virginia's largest single employment sector, should grow by 5,000 jobs, or 0.7 percent, in 2009 to 699,600—still running on previous tax revenues and benefiting from the arrival of the first of the stimulus monies. Job growth will turn negative by 3,300 jobs, or 0.5 percent, to 696,300 in 2010 as state and local governments suffer from reduced real estate and property tax values. It looks like now most of the stimulus monies will arrive in the last half of 2009 and the first-half of 2010, but this is hard to pinpoint. Federal civilian government employment should add 300 jobs, or 0.2 percent, to 160,500 in 2009, and 1,200 jobs, or 0.7 percent, to 161,700 in 2010. Base Closure and Realignment Commission (BRAC) recommendations will cause a reshuffling of some Virginia federal personnel. Generally, the BRAC recommendations cause staff reductions in Hampton Roads and Northern Virginia (much of the Northern Virginia change is moving personnel out of unsecured rented quarters to government posts), but big gains in the Richmond area (expansion of Fort Lee). State government employment will expand by only 500 jobs (0.3 percent) in 2009, to 155,000, and then drop 2,000 jobs, or 1.3 percent, to 153,000 in 2010. Local governments are expected to add





4,100 jobs, or 1.1 percent, in 2009 (old revenues and stimulus monies), but then fall 2,500 jobs, or 0.6 percent, as reduced tax revenues hit and the stimulus has been spent. The loss of tax revenues will be a problem in both years as state and local government agencies, unlike the federal government, cannot run a budget deficit. Higher education is an “export industry” in Virginia, and state colleges have other means of revenue other than the state general fund budget, such as tuition fees, research grants, user and athletic fees, and alumni support, although some of these additional funding sources may be hurt by the financial crisis. Virginia state colleges make up over 90,000 of the 155,000 state employment total.

**Professional and business services,** Virginia’s largest private employing sector with a 655,100 job average for 2008, is expected to see a steep decline of 20,500 jobs, or 3.1 percent, to 634,600 jobs in 2009. The job loss in Virginia’s normally fastest-growing sector will be at architectural and engineering firms, because of the building slump, and at professional employment service providers, due to much less demand for temporary service workers during the downturn. There also may be some reductions in the ranks of business consultants. Professional and business services returns quickly to positive employment levels by 2010 and once again provides a large number of new jobs. This sector is expected to add 12,200 jobs, or 1.9 percent, to a level of 646,800 by 2010. The demand is expected to remain very strong for computer software writers, accountants, and legal professionals. It will be beyond the forecast period before 2008 job levels are re-obtained.

The **trade sector** should see a loss of 9,300 jobs, or 3.5 percent, to 527,200 in 2009 as consumer spending bottoms out. The job losses will be at small, marginal independent retailers, building supply firms, car dealers, and the Virginia outlets of some bankrupt national chains. Consumers resume spending by 2010 with gains of 3,500 jobs, or 0.7 percent, to 530,700.

**Other, or miscellaneous, services** should see slight job losses before turning back barely positive. Job levels will be off 600, or 0.3 percent, to 188,100 in 2009. Employment should add 600 jobs, or

0.3 percent, to 188,700 in 2010. These traditional service providers, like barber shops, beauty parlors, and other personal services, repair shops, and nonprofit and charity organizations (subgroups that originally made up services under the SIC codes) should move with the changing economy. Charities may see fewer donations as consumers cope with falling home and investment equity, but client needs will increase.

**Transportation, warehousing, and utilities** will see a downturn of 1,800 jobs, or 1.5 percent, to 117,200 in 2009, mainly because of less merchandise being shipped especially through Virginia’s ports. After that, this industry should add 700 jobs, or 0.6 percent, to 117,900 in 2010 as the pace of commerce picks up. Port business should revive with the economy. The airlines should benefit from lower fuel prices and streamlined security procedures. Electric utilities need to increase capacity to meet the ever-growing energy demands. Energy costs are a concern to all subsectors of the transportation and utilities industry.

**Natural resources and mining** should see only minor changes in the forecast period. Employment may be down 300, or 2.7 percent, to 10,800 in 2009 due to lower oil prices and industry production dislocations. Job additions of 200, or 1.9 percent, to 11,000 in 2010 are expected. This industry is expected to follow energy markets. On the plus side, utilities will use more coal when oil prices are up and the mines are having to recruit replacements for an aging workforce. On the downside, Virginia coal seams are becoming more difficult to extract economically, and there is stiff competition from newer mines in the western states.

**Finance, insurance, and real estate** should see further losses of 1,700 jobs, or 0.9 percent, mostly in real estate and insurance, to 187,100 in 2009. Many commercial leases are being renegotiated lower when they come up for renewal. The housing market starts to bottom out, but 2010 sees an additional small financial job loss of 400, or 0.2 percent, to 186,700. Virginia benefits now from having few nationwide bank headquarters or troubled investment houses located in the state. Also, Virginia’s surplus real estate properties appear less than in many other states. Virginia-based Capital

One Financial appears to be going to benefit from the national bank bailout, although it is one of the stronger financial corporations. A full rebound will not come until after the forecast period is over.

The **information industry** should see losses of 1,200 jobs, or 1.4 percent, to 86,400 in 2009 and 2,400 jobs, or 2.8 percent, to 84,000 in 2010, mainly because of continued intense cell phone competition in a softening market. There will be some attrition in the print media.

The **leisure and hospitality industry** should see job losses of 8,300, or 2.4 percent, to 340,200 in 2009 at the height of the downturn. After that, job growth falls less steeply, but is still down 2,200, or 0.6 percent, for 2010. Virginia's proximity to the populous Northeast and Great Lake states always helps as do more moderate gasoline prices. Virginia benefits from people taking shorter vacations closer to home.

**Construction employment**, which to a large measure is responsible for the downward trends in other industries, is expected to see further job losses in the forecast period. Construction employment should be down by 3,600 jobs, or 1.6 percent, to 218,600 in 2009 and 3,400 jobs, or 1.5 percent, to bottom out at 215,200 jobs in 2010. Revival should begin

in 2011. Residential building has been the biggest offender because of the mortgage/credit situation. Virginia's worst problems have been largely in Northern Virginia, but most other areas have seen declines also. Still, Virginia is not nearly as overbuilt as states like California, Florida, Nevada, and Arizona and should be making a comeback by 2011. Commercial construction, which held up well in Virginia in 2007 and 2008, should be down for much of the forecast period, but stimulus road and public works projects paid for by the federal government may help. Construction associated with the expansions of military bases also should help Virginia. When construction employment in Virginia revives after the forecast period, it will likely become larger than the still-expected-to-dwindle factory sector.

The **manufacturing sector** is expected to lose employment through 2010 with both durable goods and nondurable goods losing lots more jobs. Factories will lose 9,300 jobs, or 3.5 percent, to 255,200 in 2009 and 10,200 jobs, or 4.0 percent, to 245,100 in 2010. These losses will be in motor vehicles and vehicle parts, building materials, furniture, and textiles. A reviving economy and new shipbuilding contracts by 2010 will help, but factory employment is expected to continue to decline.



## NONFARM EMPLOYMENT IN VIRGINIA\*

(using 2007 revisions to NAICS categories)

| Industry                                   | 2008 Average | Revised Projected |              | Change  |         |         |      |
|--|--------------|-------------------|--------------|---------|---------|---------|------|
|  |              | 2009 Average      | 2010 Average | Number  |         | Percent |      |
| Total Nonfarm Jobs                         | 3,757,500    | 3,703,400         | 3,712,700    | -54,100 | +9,300  | -1.5    | +0.3 |
| Mining                                     | 11,100       | 10,800            | 11,000       | -300    | +200    | -2.7    | +1.9 |
| Construction                               | 222,200      | 218,600           | 215,200      | -3,600  | -3,400  | -1.6    | -1.5 |
| Manufacturing                              | 264,600      | 255,300           | 245,100      | -9,300  | -10,200 | -3.5    | -4.0 |
| Trade                                      | 539,200      | 527,200           | 530,700      | -12,000 | +3,500  | -2.2    | +0.7 |
| Transportation, Warehousing, and Utilities | 119,000      | 117,200           | 117,900      | -1,800  | +700    | -1.5    | +0.6 |
| Information                                | 87,600       | 86,400            | 84,000       | -1,200  | -2,400  | -1.4    | -2.8 |
| Finance, Insurance, and Real Estate        | 188,800      | 187,100           | 186,700      | -1,700  | -400    | -0.9    | -0.2 |
| Professional and Business Services         | 655,100      | 634,600           | 646,800      | -20,500 | +12,200 | -3.1    | +1.9 |
| Private Education and Health Services      | 438,200      | 438,300           | 452,300      | +100    | +1,400  | +0.0    | +3.2 |
| Leisure and Hospitality Services           | 348,500      | 340,200           | 338,000      | -8,300  | -2,200  | -2.4    | -0.6 |
| Miscellaneous Services                     | 188,700      | 188,100           | 188,700      | -600    | +600    | -0.3    | +0.3 |
| Total Government                           | 694,600      | 699,600           | 696,300      | +5,000  | -3,300  | +0.7    | -0.5 |
| Federal Government                         | 160,200      | 160,500           | 161,700      | +300    | +1,200  | +0.2    | +0.7 |
| State Government                           | 154,500      | 155,000           | 153,000      | +500    | -2,000  | +0.3    | -1.3 |
| Local Government                           | 380,000      | 384,100           | 381,600      | +4,100  | -2,500  | +1.1    | -0.6 |

\*Totals may not add due to rounding to the nearest one hundred.

### Labor force data (place of residence)

Labor force expansion both from natural growth and from in-migration, because of Virginia's relatively low unemployment rate compared to much of the rest of the country that is attracting new people here, should average 44,600, or 1.1 percent, to 4,169,400 in 2009; and 16,400, or 0.4 percent, to 4,185,800 in 2010. Total employment averages (which also include agricultural, self-employed, and domestic household workers) are projected to fall 50,100, or 1.3 percent, to 3,909,900 in 2009, but then turn positive again by 6,700 jobs (or 0.2 percent), to 3,916,600 by 2010. The level of unemployed and the unemployment rate will rise into 2010. The number of average unemployed should rise 94,700 to 259,500 in 2009 and 9,700 to 269,200 in 2010. (Unemployment is usually highest at the end of the downturn.) The unemployment rate is expected to go from a 4.0 percent average in 2008 to average 6.2 percent in 2009, and 6.4 percent in 2010. Unemployment may spike to over 7.0 percent in individual months, especially in first quarters 2009 and 2010.

The Virginia unemployment rate should keep its historic relationship of being 65 to 75 percent of the national jobless rate.

### Regional forecasts

- Northern Virginia** should expect job losses of 1.0 percent, or 13,000, in 2009, but likely will return to positive job growth for 2010. Northern Virginia came out of the benchmarks with smaller losses than were predicted. A key factor here is professional/business services—if it stays positive, or only goes barely negative, it can benefit this area and the entire state. Architects and engineers are losing jobs, but there is more work for computer, legal, and accounting firms to help businesses through the recession. Government contracting and construction on military posts could also help. Additional federal employees and stimulus monies to localities are an added plus. The large education/health care sector should remain positive. Worries are further trade, services, and leisure/hospitality losses. Construction may have lost most of what it is going to lose.



Northern Virginia should rebound in 2010 and may lead the state in recovery. Northern Virginia's innovative and intelligent professional and business services has to rebound in order for the rest of the country to recover.

Northern Virginia **unemployment** should not go much above 5 percent and should remain one of the lowest jobless rates in the nation.

- ◎ **Virginia Beach-Norfolk-Newport News, Virginia/North Carolina** should expect job losses of 1.0 percent, or 8,000, in 2009, but probably will return to positive job growth in 2010. This area did not do as well in the benchmarking as expected because of construction, services, and port losses. Keeping this economy fairly strong are support of the large military presence, federal contracting, and large health care and higher education components. Stimulus monies should be a big plus factor with \$225 million slated for Hampton Roads. In the next year, the Navy is supposed to start construction on the aircraft carrier, *Gerald R. Ford*, and a nuclear submarine. With the Ford truck plant gone, the area does not have the factory vulnerability it used to have. The ports, services, and tourism may have problems for a time. Hampton Roads usually weathers recessions better than other Virginia areas.

Hampton Roads **unemployment** should be near the state average, in the 6 to 7 percent range.

- ◎ The **Lynchburg** area should see job losses of about 1.0 percent, or 1,000 jobs in 2009, mostly in the fairly large factory component. Lynchburg came out of the benchmarking better than most other Virginia areas. The growth at the private colleges and their support industries may be at a slower pace for a time. Job losses in manufacturing are the big concern, but if Areva NP and Babcock and Wilcox expand their nuclear facilities as planned, there could even be factory growth. Employment could be neutral to positive by 2010.

**Unemployment** is likely to be 7 to 8 percent because of the large factory component and its vulnerability to inventory layoffs.

- ◎ The **Charlottesville** area benefits from its largest employer, the University of Virginia and the University Medical Center, which together provide about one-fifth of the region's employment, and from the research and development, health care, and support industries that go along with the university and hospital. By 2010, the federal Joint Use Intelligence Analysis Facility will move from Washington, D.C., and Northern Virginia to northern Albemarle County, joining other federal facilities already in the region. This move is another benefit of BRAC. While the arrival of 1,100 more high-paying jobs to the region will boost the local economy, most workers will come with the federal agency. Area tourism should be neutral to negative. There may be more job losses in the area's shrinking factory sector. Job growth may range between neutral and 1.0 percent negative.

**Unemployment** should average between 5 and 6 percent, with the Charlottesville area keeping its place as the second-lowest Virginia metropolitan area.

- ◎ The **Blacksburg-Christiansburg-Radford** area benefits significantly from Virginia Tech and Radford, the two large state universities, and their support employment, but the area's significant vehicle manufacturing and component industries now face more problems. Look for neutral to negative job growth during the forecast period.

**Unemployment** will probably be 7 to 8 percent because of vehicle-related factory layoffs.

- ◎ The **Roanoke** area recently had been one of Virginia's more stable areas. Most job growth is likely to continue to come from the health care industry, but there likely will be factory furloughs.

**Unemployment** should average 6 to 7 percent.

- ◎ **Richmond** area job growth will likely be about 3 percent, or 22,800, negative in 2009 because of the coincidence of several major layoffs and closings. It used to be when the Richmond area was headquarters to a number of conservatively run state and regional businesses that Richmond sailed on through downturns without many problems. In the last two decades, many

of these state and regional businesses have been bought out or merged with national and international concerns, taking decision-making out of the local area. Now when recessions come, the Richmond area seems much more vulnerable to national and worldwide trends. Maybe the worst of these layoffs has already happened and job growth will be neutral to positive by 2010.

Hurting the region have been layoffs at the one-decade-old high-tech computer chip maker, Qimonda, and Reynolds Wrap, big troubles at several area-based national finance and insurance companies, and bankruptcy of the area headquartered Circuit City national electronics retailer. The area has been losing factory jobs for years and that trend is likely to continue. State government, the largest single employer, is certain to see budget cut layoffs, although stimulus monies may help. On the positive side, the area remains a center for health care and public and private higher education, which together should see slight employment gains. One new shopping center opened near the Richmond airport at the end of 2008, and another on 288 in Chesterfield County is opening in 2009. A downside to this is the Richmond area is probably already overbuilt in retail space, and some of the employment at the new centers may come at the expense of older malls. Phillip Morris is scheduled to move a sizable tobacco manufacturing operation to the Richmond area from Concord, North Carolina, to consolidate production by 2010. Probably the biggest plus for the region is that the ongoing federal project to more than double the size of operations at Fort Lee will last throughout the forecast period. This massive project will require much construction and support infrastructure and is taking place in what for the last two decades has been the economically weaker part of the Richmond region. Prince George County near Petersburg is also getting a new Rolls Royce jet engine manufacturing facility.

Overall **unemployment** in the Richmond area should average in the 7 to 8 percent range because of all the recent closings.

- The **Harrisonburg** area is expected to still benefit from the large James

Madison state university and the research and development and support industries that go along with it. Also, there is some movement to the area by technology industries from Northern Virginia. Area manufacturing is a balanced mix of agricultural and industrial interests, but it has now fallen victim to the ills of the domestic vehicle industry, and this is likely to cause negative job growth, at least for 2009.

**Unemployment** should average around 6 percent because of the manufacturing problems.

- The **Winchester, Virginia/West Virginia** area is the smallest published Virginia metropolitan area, and smaller areas seem more vulnerable to wider percentage swings in both employment and unemployment. The area should benefit from the large amount of service-industry employment in the region and perhaps some spillover employment from the recent change of administration in nearby Washington, D.C. Area manufacturing now has high vulnerability to problems in the national construction and vehicle industries, and this has driven down employment and increased unemployment. This area will probably see 3 percent job loss in 2009, with a return to a more neutral position in 2010.

The **unemployment** rate is expected to average 8 to 9 percent.

- The **Danville** area has recently gained in services and education employment, which make it slightly less vulnerable in downturns, but because of the still large factory sector, there will be inventory control layoffs that will turn employment negative.

**Unemployment** should be double-digit, higher than any other metropolitan area.

The nonmetropolitan **Balance of State** should, unfortunately, see a good bit of the state's rise in unemployment in this recession because of its still dominant factory employers. As usual, the upper-half of the state (above I-64) will have fewer problems than the lower-half with factory domination being the controlling factor. Jurisdictions along the North Carolina border that continue to lose manufacturing employers will continue to have the state's highest unemployment.

Performance of Indicators Over the Business Cycle

For those interested in studying the business cycle in Virginia, this publication includes several of the economic time series for which data is readily available on a monthly basis. From time to time, new series will be added and, if necessary, others presently included will be discontinued.

Business Cycle Turning Points

The beginning of a recession is defined as the month when aggregate economic activity in the U.S. reaches a cyclical high, from which it begins to turn down, and the end as the month when it reaches a cyclical low, from which it begins to turn up. On November 26, 2001, the National Bureau of Economic Research (NBER) announced a recession had begun in March 2001. On July 17, 2003, NBER announced the recession ended in November 2001. The NBER on December 1, 2008, announced a recession had begun in December 2007.

Seasonal Adjustment

To correlate changes in a time series and changes in the business cycle, it is desirable to eliminate, insofar as possible, the effect of irrelevant factors from the data comprising the series. All series currently published in the *Virginia Economic Indicators* have been adjusted to minimize regular seasonal fluctuations in the data in order to show only activity related to the business cycle.

Historical Graphs

Historical graphs are published in the back of the fourth quarter issue for each year.

| DATA SOURCES                                  |   |
|---|---|
| <b>U.S. Census Bureau:</b>                    | Deflated Average Hourly Earnings              |
| Single Family Housing Permits                 | Deflated Average Weekly Earnings              |
| <b>Virginia Department of Motor Vehicles:</b> | Insured Unemployment Rate                     |
| New Vehicle Registrations                     | Manufacturing Employment                      |
| <b>Virginia Department of Taxation:</b>       | Nonagricultural Wage and Salary Employment    |
| Deflated Taxable Retail Sales                 | Total Production Hours                        |
| Taxable Retail Sales                          | Total Unemployment Rate                       |
| <b>Virginia Employment Commission:</b>        | Unemployment Insurance Final Payments         |
| Average Hourly Earnings                       | <b>Virginia State Corporation Commission:</b> |
| Average Weekly Earnings                       | New Business Incorporations                   |
| Average Weekly Hours                          |   |
| Average Weekly Initial Claims                 |   |



# HISTORICAL GRAPHS

## MONTHS OF CYCLICAL DOMINANCE (MCD)

After seasonal adjustment, there often remains a significant degree of purely random change—the effect of which can be minimized with a moving average equal in length to the MCD of the series. The MCD is an estimate of the length of the moving average which will reveal the cyclical pattern among the welter of random fluctuations in the data—the greater the MCD the more random and less cyclically significant are monthly changes in the series. Charts of historical data in this publication represent seasonally adjusted figures which have been averaged according to the MCD of each series.

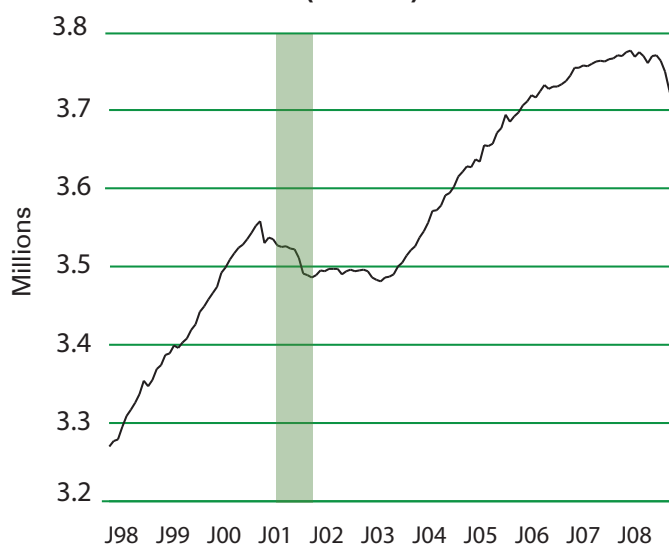
### Notes:

<sup>†</sup> Starting with January 2001 data, manufacturing series are estimated using the NAICS codes instead of the old SIC codes. The most important change is that publishers, primarily newspapers, are no longer included in manufacturing, but are part of the new information sector.

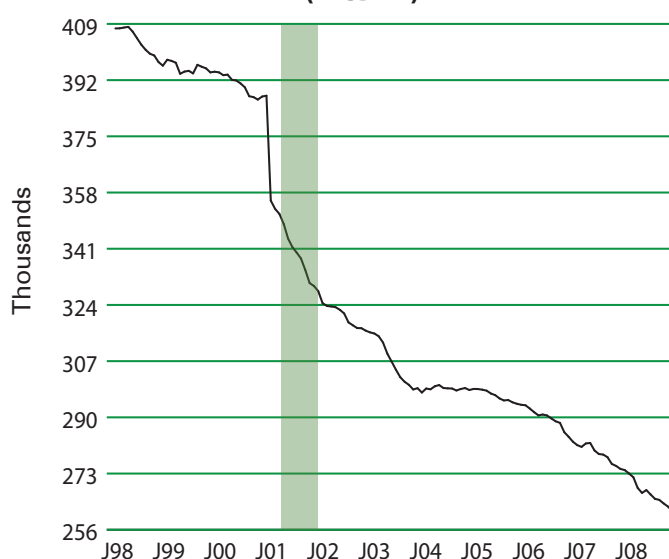
<sup>α</sup> Beginning with the January 2005 data, building permit data reflect an increase in the universe of permit-issuing places.

The shaded area on the graphs represents the Mar.-Nov. 2001 recession.

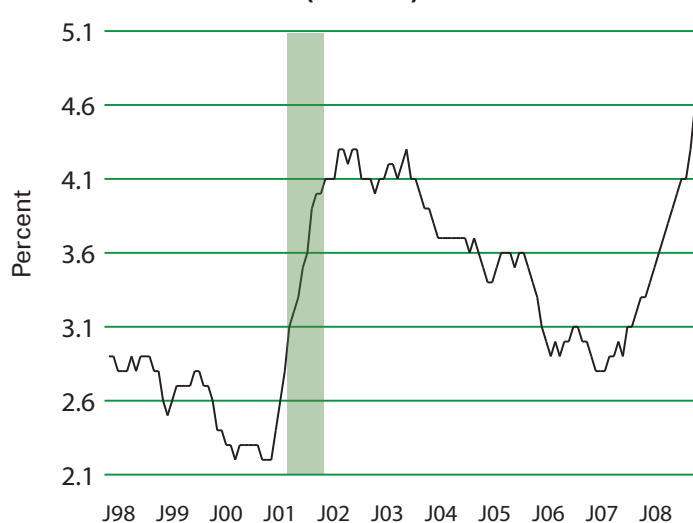
**Nonagricultural Wage & Salary Employment\*  
(MCD=1)**



**Manufacturing Employment\*<sup>†</sup>  
(MCD=1)**

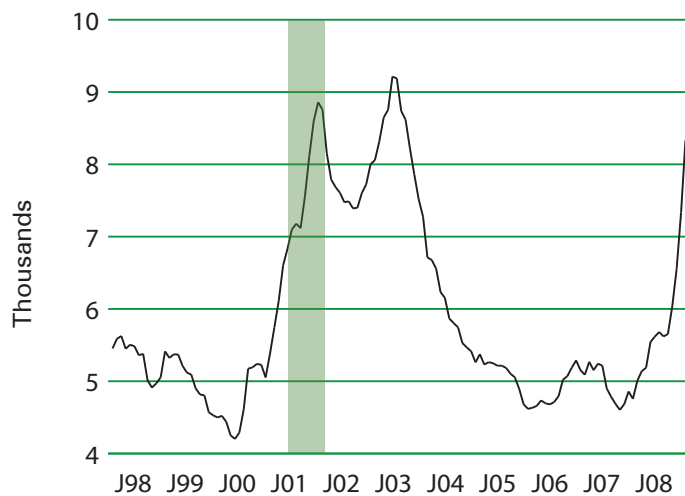


**Total Unemployment Rate\*  
(MCD=1)**

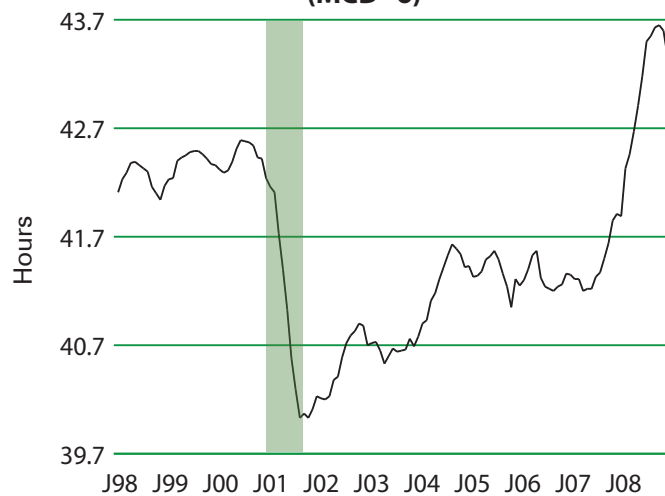


\*MCD Moving Average

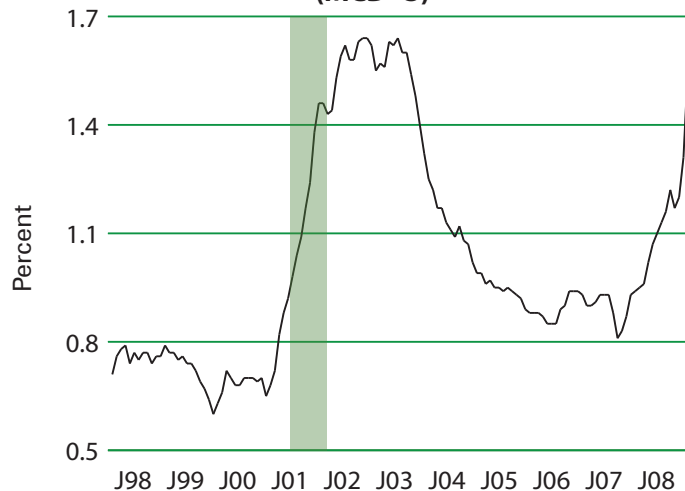
**Average Weekly Initial Claims\***  
(MCD=4)



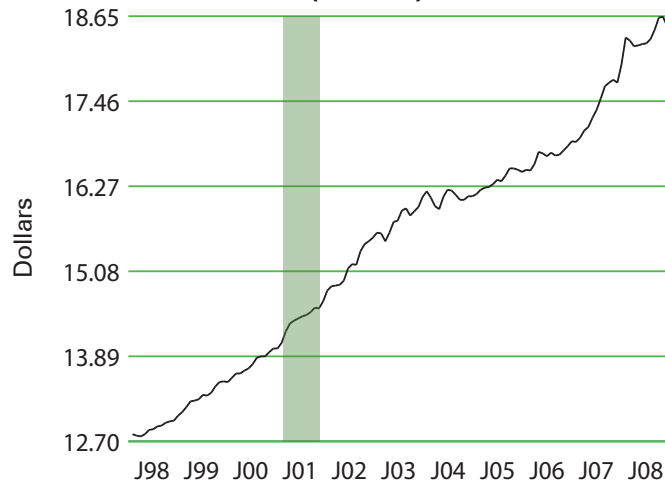
**Average Weekly Hours\*†**  
(MCD=6)



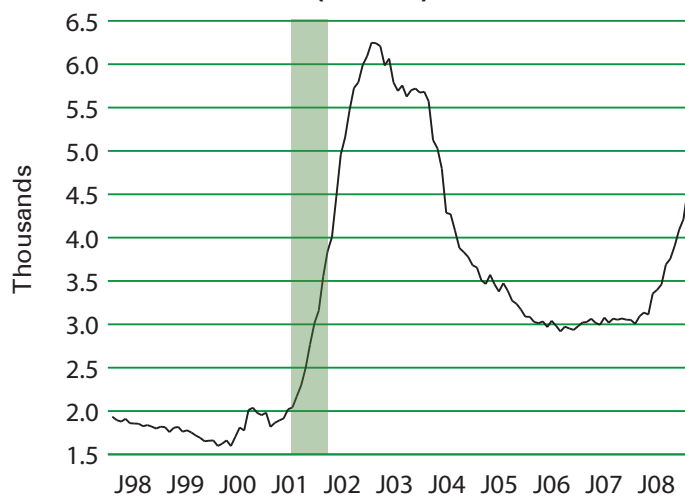
**Insured Unemployment Rate\***  
(MCD=3)



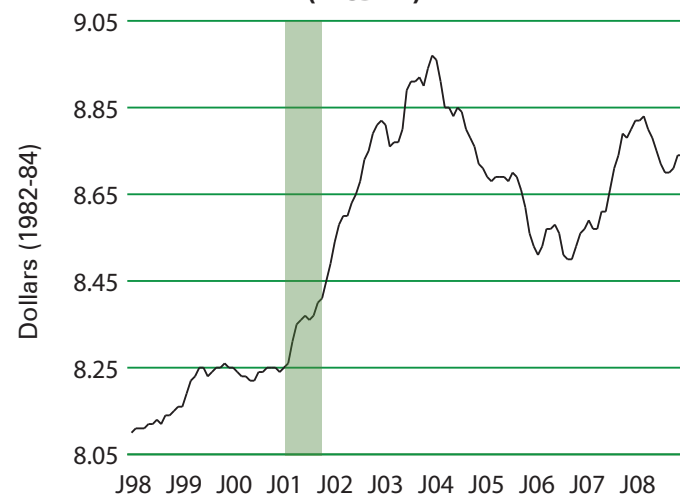
**Average Hourly Earnings\*†**  
(MCD=2)



**Unemployment Insurance Final Payments\***  
(MCD=5)

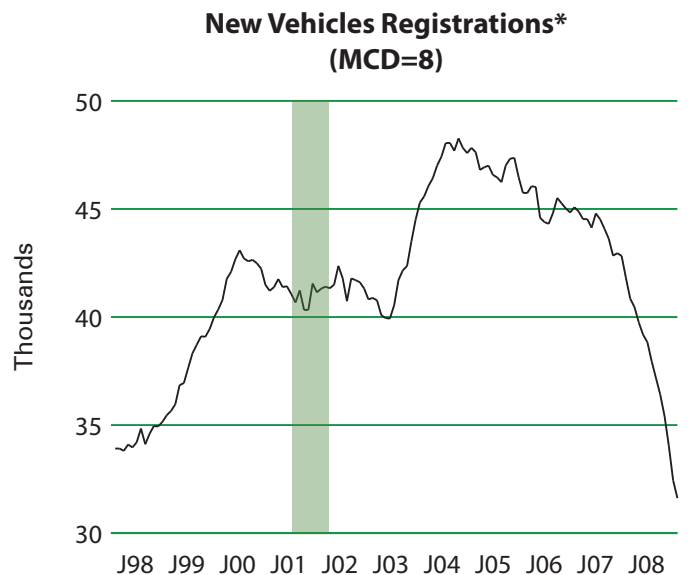
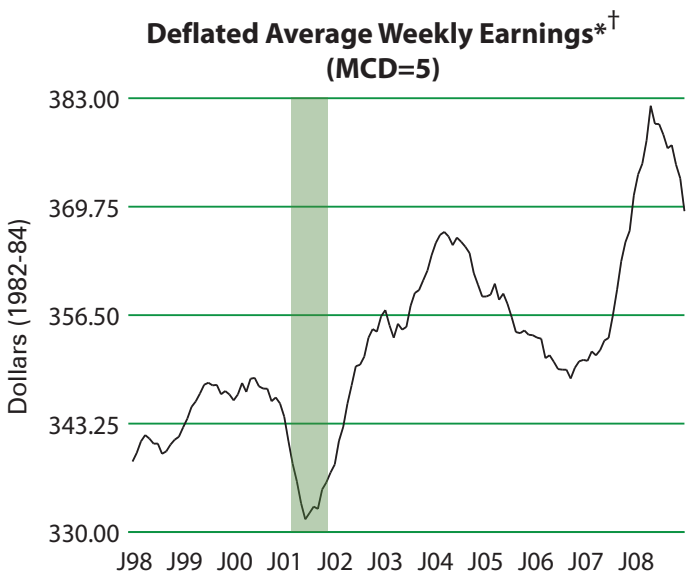
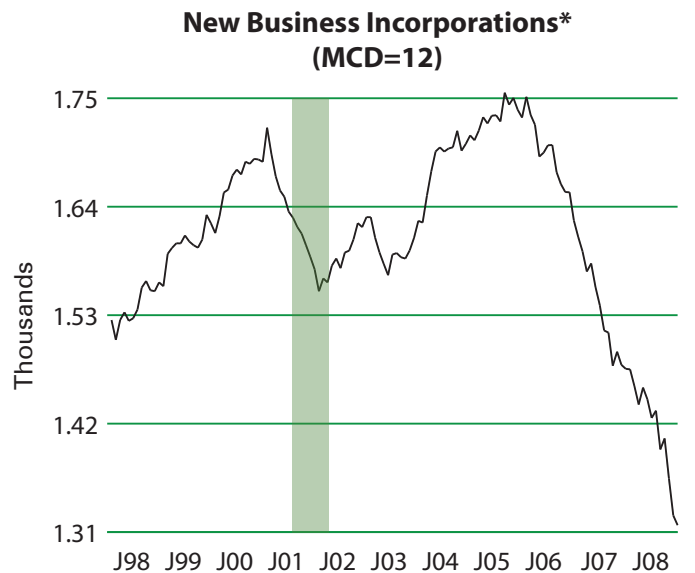
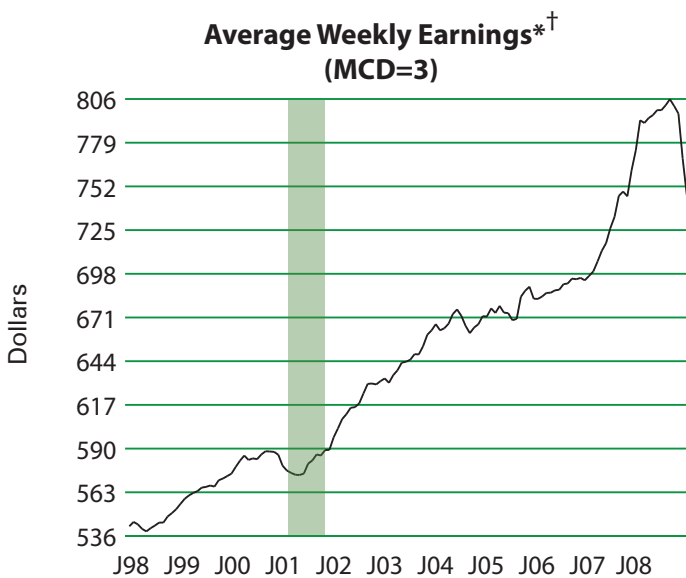
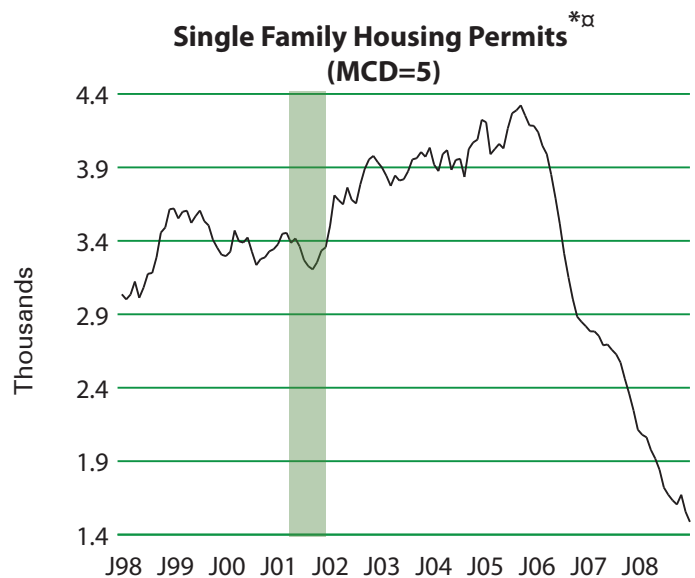
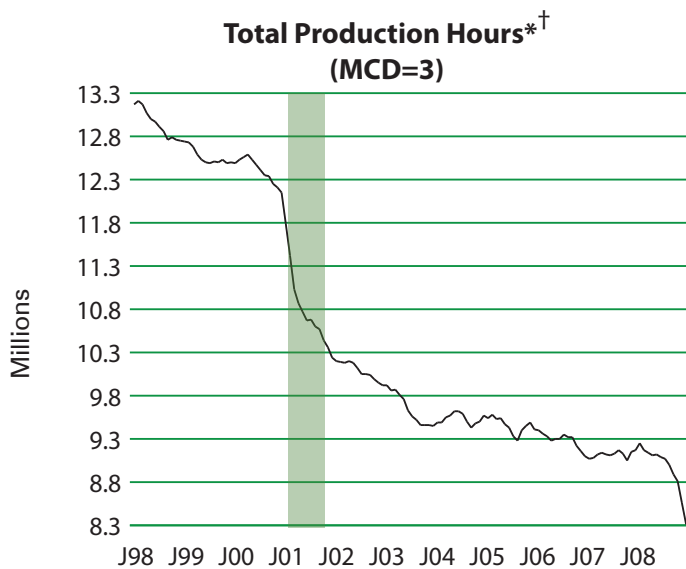


**Deflated Average Hourly Earnings\*†**  
(MCD=4)



\*MCD Moving Average

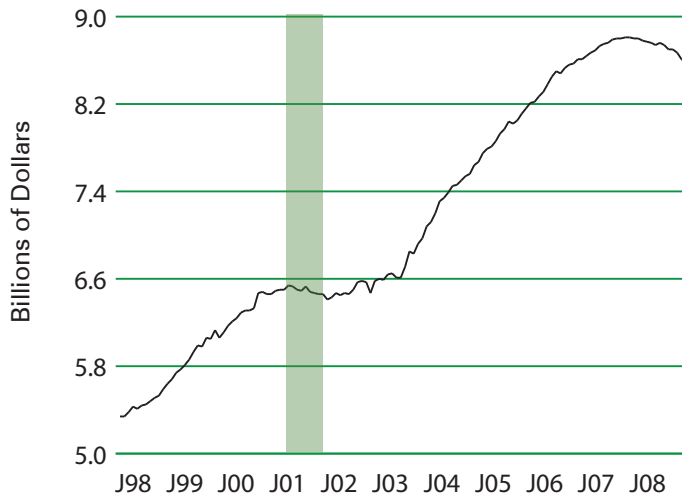
†See note on page 33.



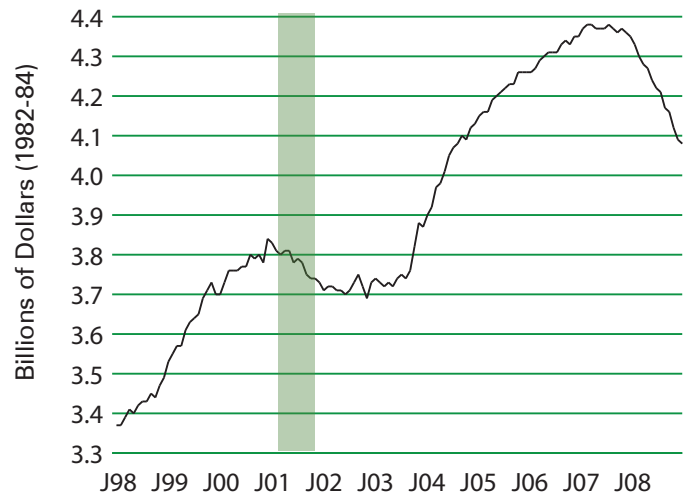
\*MCD Moving Average

<sup>†</sup> See notes on page 33.

**Taxable Retail Sales\***  
(MCD=9)



**Deflated Taxable Retail Sales\***  
(MCD=12)



\*MCD Moving Average







